2015-2016 ACADEMIC CALENDAR

Registration - Consult the fall Class Schedule or [www.southmountaincc.edu](http://www.southmountaincc.edu) for registration and drop/add information.

Summer Semester – 2015 (Subject to 2015-2016 Catalog)

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>Tuesday</td>
</tr>
<tr>
<td>Observance of Independence Day (campus closed)</td>
<td>Thursday</td>
</tr>
<tr>
<td>Summer Semester Ends</td>
<td>Thursday</td>
</tr>
<tr>
<td>Summer Semester Ends</td>
<td>July 2</td>
</tr>
<tr>
<td>Summer Semester Ends</td>
<td>July 30</td>
</tr>
</tbody>
</table>

Fall Semester – 2015

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Classes Begin</td>
<td>Saturday</td>
</tr>
<tr>
<td>Observance of Labor Day</td>
<td>Monday</td>
</tr>
<tr>
<td>Application for December 2014 Graduation*</td>
<td>November 7</td>
</tr>
<tr>
<td>Last Day for Withdrawal without Instructor's Signature+</td>
<td>November 11</td>
</tr>
<tr>
<td>Observance of Veterans' Day</td>
<td>Wednesday</td>
</tr>
<tr>
<td>Thanksgiving Holiday</td>
<td>Thursday-Sunday</td>
</tr>
<tr>
<td>Last Day Student Initiated Withdrawal Accepted++</td>
<td>November 26-29</td>
</tr>
<tr>
<td>Last Day of Regular Classes</td>
<td>Sunday</td>
</tr>
<tr>
<td>Final Exams**</td>
<td>Monday-Thursday</td>
</tr>
<tr>
<td>Mid-Year Recess Begins for Students</td>
<td>Friday</td>
</tr>
<tr>
<td>Fall Semester Ends</td>
<td>December 18</td>
</tr>
<tr>
<td>Winter Break (Campus Closed)</td>
<td>December 25-January 1</td>
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Spring Semester – 2016

<table>
<thead>
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<tbody>
<tr>
<td>Classes Begin</td>
<td>Saturday</td>
</tr>
<tr>
<td>Observance of Martin Luther King, Jr. Birthday</td>
<td>Monday</td>
</tr>
<tr>
<td>Observance of Presidents' Day</td>
<td>Monday</td>
</tr>
<tr>
<td>Application for May 2016 Graduation*</td>
<td>February 15</td>
</tr>
<tr>
<td>Last Day for Withdrawal without Instructor’s Signature +</td>
<td>March 14-20</td>
</tr>
<tr>
<td>Spring Break</td>
<td>Monday-Sunday</td>
</tr>
<tr>
<td>Last Day Student Initiated Withdrawal Accepted ++</td>
<td>May 8</td>
</tr>
<tr>
<td>Last Day of Regular Classes</td>
<td>Sunday</td>
</tr>
<tr>
<td>Final Exams**</td>
<td>Monday-Thursday</td>
</tr>
<tr>
<td>Commencement</td>
<td>Friday</td>
</tr>
<tr>
<td>Spring Semester Ends</td>
<td>Friday</td>
</tr>
<tr>
<td>Observance of Memorial Day</td>
<td>Monday</td>
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</table>

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Spring Semester Ends</td>
<td>May 13</td>
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<tr>
<td>Observance of Memorial Day</td>
<td>May 13</td>
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<tr>
<td>Spring Semester Ends</td>
<td>May 13</td>
</tr>
<tr>
<td>Observance of Memorial Day</td>
<td>May 30</td>
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</table>
Welcome to the 2015/2016 South Mountain Community College catalog!

It is with great pleasure that I welcome you to South Mountain Community College (SMCC). As the South Mountain Community College mission statement suggests, we promote student success through academic programs and student support initiatives.

Whether you are just graduating high school, climbing the career ladder, seeking new skills or trying to discover your path, South Mountain Community College is committed to your success. This catalog was created to be a valuable resource for you. Refer to it often to familiarize yourself with our programs, classes, policies and services.

Since its founding in 1978, SMCC has proudly served the communities of south Phoenix, Ahwatukee, Chandler, Tempe, Guadalupe and Laveen. In 2013, a new partnership was created with the Gila River Indian Community, and we continue to serve the community members on the Reservation with programming that integrates Native traditions and cultural elements.

The faculty and staff at SMCC care deeply about your individual success. As a strengths-based institution, we are dedicated to helping you determine and understand your own personal strengths, and will help you maximize them in the pursuit of your educational and career aspirations. In order to meet your goals, we provide personalized services and engaged, active learning that will help you meet your goals.

Whether you are here with plans to transfer to a four-year institution, prepare for a career or enhance your personal or professional skills, SMCC has something to offer you.

Sincerely,

Shari L. Olson, Ph.D.
President
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**Common Pages**

The Catalog Common Pages are MCCCD Administrative Regulations and Appendix items specifically relevant to students. These regulations are used in managing the day-to-day operations of MCCCD and are subject to change. Administrative Regulations are amended, adopted, or deleted as necessary and are subject to a formal approval process. Administrative regulations are referenced as “AR” followed by a regulation number, which corresponds with the regulations on the MCCCD website.

Some regulations include reference to Arizona Revised Statutes from the State of Arizona and are noted as “ARS” followed by a reference number.

You can download the Catalog Common Pages to access the subset of regulations that constitute student policies at [http://tiny.cc/catalogcommonpages](http://tiny.cc/catalogcommonpages)
ADMINISTRATION

Dr. Shari Olson  
President

Dr. Rey Rivera  
Vice President, Academic Affairs

Dr. Janet Ortega  
Vice President, OE&T

Dr. Osaro Ighodaro  
VP, Student Development

Guy Goodman  
Dean, Student Enrollment

Damita Kalostian  
Dean, Planning, Research and Development

Matilda Chavez  
Dean, Academic Innovation
GENERAL INFORMATION

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, and regulations—published in the catalog.

VISION
South Mountain Community College educates minds, transforms lives, touches hearts, and builds community.

MISSION
South Mountain Community College provides quality higher education for our diverse community. We create a caring teaching and learning environment that fosters student development and supports productive citizenship in an increasingly global and technological society.

Our purpose is to meet these needs by offering:
- General education courses
- Transfer programs
- Occupational education and career development
- Continuing education
- Developmental studies and English as a second language
- Cultural, civic, and social events
- Academic support and student services

VALUES
We are inspired and guided by our core values:

- **Collaboration**: We are inclusive in our relationships with colleagues, departments and community, and respectful of their ideas.
- **Community**: We serve our community by recognizing our inter-dependence, celebrating our history, honoring our diverse cultures, and building our future.
- **Excellence**: We model exemplary teaching, learning, service and leadership through continuous improvement, creativity and innovation.
- **Integrity**: We are accountable to the communities we serve and are truthful, sincere, transparent and responsible for our actions.
- **Wellbeing**: We are a college community that encourages and develops social, physical, career, community and financial wellbeing.

ACCREDITATION
South Mountain Community College, one of ten Maricopa Community Colleges, is accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools, Commission on Institutions of Higher Education, 230 S. LaSalle Street, Suite 7-500, Chicago, IL 60604-1411, 800.621.7440 or 312.263.0456.
### AREAS/PROGRAMS

**Description**

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

### Agriculture, Food, and Natural Resources

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<thead>
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<th>Description</th>
<th>Institution</th>
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<tr>
<td>Equine Science</td>
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<tr>
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<tr>
<td>Environmental and Natural Resource Sustainability</td>
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<td>Equine Science</td>
<td>SC</td>
</tr>
<tr>
<td>Landscape Aide</td>
<td>MC</td>
</tr>
<tr>
<td>Landscape Specialist</td>
<td>MC</td>
</tr>
<tr>
<td>Urban Horticulture</td>
<td>MC</td>
</tr>
<tr>
<td>Veterinary Technology/Animal Health</td>
<td>MC</td>
</tr>
<tr>
<td>Workforce Development: Horticulture</td>
<td>RS</td>
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<tr>
<td>Workforce Development: Landscape Technology</td>
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</table>

### Architecture and Construction

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<th>Description</th>
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<td>Air Conditioning/Refrigeration/Facilities</td>
<td>GW</td>
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<tr>
<td>Architecture</td>
<td>MC</td>
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<tr>
<td>Architectural CADD Level III</td>
<td>MC</td>
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<tr>
<td>Architectural Detailing CADD Level III</td>
<td>MC</td>
</tr>
<tr>
<td>Architectural Technology</td>
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<tr>
<td>Building Inspection</td>
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<tr>
<td>Construction Trades: Bricklaying and Tilesetting</td>
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<tr>
<td>Construction Trades: Carpentry</td>
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<tr>
<td>Construction Trades: Construction Management</td>
<td>GW</td>
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<tr>
<td>Construction Trades: Millwrighting</td>
<td>GW</td>
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<tr>
<td>Construction Trades: Plastering and Cement Masonry</td>
<td>GW</td>
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<tr>
<td>Construction Trades: Painting and Drywalling</td>
<td>GW</td>
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<tr>
<td>Construction Trades: Pre-Apprenticeship</td>
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<tr>
<td>Construction Trades: Sheet Metal</td>
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<tr>
<td>Construction Trades: Electricity</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades: Heat and Frost Insulation</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades: Heavy Equipment Operations</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades: Ironworking</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades – Mechanical Trades: Heating, Ventilating and Air Conditioning</td>
<td>GW</td>
</tr>
<tr>
<td>Construction Trades – Mechanical Trades: Plumbing</td>
<td>GW</td>
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<tr>
<td>Construction Trades – Mechanical Trades: Pipefitting</td>
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<tr>
<td>Construction Trades – Mechanical Trades: Sheet Metal</td>
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<tr>
<td>Construction Trades: Concrete Form Builder</td>
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<tr>
<td>Construction Trades: Pipe Trades – Pipefitter-Refrigeration</td>
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<tr>
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<tr>
<td>Construction Trades:Plumbing</td>
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### AREAS/PROGRAMS

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<th>AREAS/PROGRAMS</th>
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<tbody>
<tr>
<td>Construction Trades: Steamfitting</td>
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<tr>
<td>Computer Aided Drafting</td>
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<td>Computer Aided Design and Drafting CADD Level I</td>
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<td>Construction Drafting CADD Level III</td>
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<td>Construction Management</td>
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<td>Plan Review</td>
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<tr>
<td>Residential and Light Commercial Air Conditioning</td>
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<tr>
<td>Residential Drafting CADD Level II</td>
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<tr>
<td>Survey and Civil Drafting - CADD Level II</td>
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<tr>
<td>Workforce Development: Carpentry Level I</td>
<td>RS</td>
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<tr>
<td>Workforce Development: Carpentry Level II</td>
<td>RS</td>
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<tr>
<td>Workforce Development: Furniture Construction/Refinishing Level I</td>
<td>RS</td>
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<tr>
<td>Workforce Development: Furniture Construction/Refinishing Level II</td>
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### Art, A/V Technology, and Communication

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<td>Costume Design and Production</td>
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<td>Costuming</td>
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<td>Disc Jockey Techniques</td>
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<tr>
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<tr>
<td>Family Life Education</td>
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<td>PC</td>
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<tr>
<td>Fashion Design Level I</td>
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<tr>
<td>Fashion Illustration</td>
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<tr>
<td>Fashion Merchandising</td>
<td>PC</td>
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<tr>
<td>Fashion Merchandising &amp; Design</td>
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<tr>
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<td>Interior Design</td>
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<td>Parent Education</td>
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<tr>
<td>Textile and Apparel: Fashion Illustration Specialist</td>
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<td>Textile and Apparel: Industrial Sewing Technician</td>
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<td>Textile and Apparel: Product Development</td>
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<tr>
<td>Administrative Professional</td>
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<td>Human Services-Specialist: Customer Service</td>
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<td>Human Services - Unemployment Insurance: Customer Service</td>
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<tr>
<td>Military Leadership</td>
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<td>Management of Clinical Information Technology: Health</td>
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<td>Information Technology Implementation Support</td>
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<tr>
<td>Management of Clinical Information Technology: Health</td>
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<td>Information Technology Technical Support</td>
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<td>Workflow and Information Management Redesign</td>
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<td>Management of Clinical Information Technology: Technical Support</td>
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<tr>
<td>Implementation Management</td>
<td>GW</td>
</tr>
<tr>
<td>Management of Clinical Information Technology: Practice</td>
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<td>Information Technology Implementation Management</td>
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<td>Information Technology Consulting</td>
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<td>Motor Vehicle: Customer Service</td>
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<td>Retail Pharmacy: Customer Service</td>
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### Education and Training

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<td>Child and Family Organizations Management and Administration</td>
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<td>Child Development Associate (CDA) Preparation</td>
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<td>Curriculum for Young Children</td>
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### AREAS/PROGRAMS

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<td>Early Childhood Education and Administration: Birth through Age Five</td>
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<td>Infant and Toddler Development</td>
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### Environmental Technology

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<td>Energy Systems Technology</td>
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<td>Geospatial Technologies</td>
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<tr>
<td>Occupational Safety and Health Technology</td>
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<td>Safety, Health and Environmental Studies</td>
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<td>Wastewater Treatment</td>
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<td>Water Resources Technologies: Hydrologic Studies</td>
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<td>Licensed Real Estate Appraiser</td>
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<td>Tribal Development</td>
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### Health Science

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### Areas/Programs

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<td>Advanced Behavioral Health Sciences</td>
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<td>Advanced Emergency Medical Technology (Paramedic)</td>
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<td>Basic Behavioral Health</td>
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<td>Clinical Research Associate</td>
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<td>Computed Tomography</td>
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<td>Clinical Dental Assisting</td>
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<td>Community Dental Health Coordination</td>
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<td>Developmental Disabilities Specialist</td>
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<td>Fast Track Practical Nursing</td>
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<td>Healthcare Regulatory Compliance</td>
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<td>Health Services Management</td>
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<td>Health Unit Coordinating/Patient Care Associate</td>
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<td>Histologic Technology</td>
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<td>Hospital Central Service Technology</td>
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<td>Magnetic Resonance Imaging</td>
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<td>Medical Coding: Hospital-Based</td>
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<tr>
<td>Medical Billing and Coding: Physician-Based</td>
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<td>Medical Front Office</td>
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<td>Medical Radiography</td>
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<td>Medical Transcription</td>
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**Hospitality and Tourism**
### AREAS/PROGRAMS

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<td>Airline Operations: Passenger Services</td>
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<td>Airline Operations: Reservations</td>
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<td>Baking and Pastry</td>
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### Human Services

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<td>Family Development</td>
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<td>Group Fitness Instructor</td>
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<td>Media Arts: Digital Imaging</td>
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</tr>
<tr>
<td>Media Arts: Web Design</td>
<td>PC</td>
</tr>
<tr>
<td>Motion Picture/Television Production</td>
<td>SC</td>
</tr>
<tr>
<td>Multimedia Technology</td>
<td>MC</td>
</tr>
<tr>
<td>Network Administration</td>
<td>SC</td>
</tr>
<tr>
<td>Network Administration: CISCO Network Professional</td>
<td>MC, CG, SM</td>
</tr>
<tr>
<td>Network Administration: Microsoft Windows Server</td>
<td>CG, GW, MC</td>
</tr>
<tr>
<td>Networking: Design and System Support</td>
<td>RS</td>
</tr>
<tr>
<td>Networking Administration: Cisco</td>
<td>CG, EM, GC, GW, SM, MC</td>
</tr>
<tr>
<td>Networking System Administration</td>
<td>MC</td>
</tr>
<tr>
<td>Networking Technology: Cisco</td>
<td>CG, EM, GC, GW</td>
</tr>
<tr>
<td>Oracle Database Operations</td>
<td>CG</td>
</tr>
<tr>
<td>Programming</td>
<td>RS, EM, SM</td>
</tr>
<tr>
<td>Programming and System Analysis</td>
<td>CG, EM, GC, MC, PC, PV, SC, SM</td>
</tr>
<tr>
<td>Software Development</td>
<td>SC</td>
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<tr>
<td>Screenwriting</td>
<td>SC</td>
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<tr>
<td>Technical Theatre</td>
<td>PC, SCC</td>
</tr>
<tr>
<td>Web Application Development</td>
<td>SM</td>
</tr>
<tr>
<td>Web Design</td>
<td>GC, PV, EM, PC, CG, SM</td>
</tr>
<tr>
<td>Web Design Technologies</td>
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<tr>
<td>Web Design: User Interface</td>
<td>RS</td>
</tr>
<tr>
<td>Web Designer</td>
<td>MC</td>
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<tr>
<td>Web Developer</td>
<td>GC, MC, PC, PV, EM</td>
</tr>
<tr>
<td>Web Development</td>
<td>SC</td>
</tr>
<tr>
<td>Web Server Administrator</td>
<td>MC</td>
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</table>
## AREAS/PROGRAMS

### INSTITUTION

### Manufacturing

<table>
<thead>
<tr>
<th>Area/Program</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automation Technology</td>
<td>MC</td>
</tr>
<tr>
<td>Automation Technology Level I</td>
<td>MC</td>
</tr>
<tr>
<td>Automation Technology Level II</td>
<td>MC</td>
</tr>
<tr>
<td>Automation Technology Level III</td>
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<tr>
<td>CAD Technology</td>
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<tr>
<td>CAD Fundamental</td>
<td>GC</td>
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<tr>
<td>CAD/CAM/CNC I</td>
<td>MC</td>
</tr>
<tr>
<td>CAD/CAM/CNC II</td>
<td>MC</td>
</tr>
<tr>
<td>CAD/CAM/CNC III</td>
<td>MC</td>
</tr>
<tr>
<td>CAD Application</td>
<td>GC</td>
</tr>
<tr>
<td>Computer and Networking Technology</td>
<td>GC</td>
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<tr>
<td>Electro/Mechanical Drafting</td>
<td>MC</td>
</tr>
<tr>
<td>Electromechanical Manufacturing Technology</td>
<td>MC</td>
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<tr>
<td>Electric Utility Technology</td>
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<tr>
<td>Electric Utility Design Technology</td>
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<tr>
<td>Electrical Technology</td>
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<tr>
<td>Electromechanical Automation Technology</td>
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<tr>
<td>Electronics Engineering Technology</td>
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<td>Electronics Technology</td>
<td>MC</td>
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<tr>
<td>Industrial Design Technology</td>
<td>GW</td>
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<tr>
<td>Industrial Design Technology: Design Specialist: SolidWorks</td>
<td>GW</td>
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<tr>
<td>Machining I</td>
<td>MC</td>
</tr>
<tr>
<td>Machining II</td>
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<tr>
<td>Manufacturing Engineering Technology</td>
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<tr>
<td>Manufacturing Management</td>
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<tr>
<td>Manufacturing Welding</td>
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<td>Micro Circuit Mask Design</td>
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<tr>
<td>Meter Technology</td>
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<tr>
<td>Network Maintenance</td>
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<tr>
<td>Production Technology</td>
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</tr>
<tr>
<td>Production Technology: CNC Technology</td>
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<tr>
<td>Production Technology: Quality Assurance</td>
<td>GW</td>
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<tr>
<td>Workforce Development: Electrical Level I</td>
<td>RS</td>
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<tr>
<td>Workforce Development: Electrical Level II</td>
<td>RS</td>
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<tr>
<td>Welding</td>
<td>MC</td>
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### Marketing, Sales, and Service

<table>
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<tr>
<th>Area/Program</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Marketing</td>
<td>PC, GC, PV, SC</td>
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<td>Salesmanship</td>
<td>MC</td>
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### Law, Public Safety, Corrections, and Security

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<thead>
<tr>
<th>Area/Program</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Administration of Justice</td>
<td>EM, GC, PC, PV, RS</td>
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<tr>
<td>Administration of Justice-Comprehensive</td>
<td>PC</td>
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### AREAS/PROGRAMS

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<th>Area / Program</th>
<th>Institution</th>
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<tr>
<td>Administration of Justice-Fundamentals</td>
<td>PC</td>
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<tr>
<td>Administration of Justice Studies</td>
<td>CG, MC, SC, GW</td>
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<tr>
<td>Advanced Corrections</td>
<td>RS</td>
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<tr>
<td>Basic Corrections</td>
<td>RS</td>
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<tr>
<td>Corrections</td>
<td>RS</td>
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<tr>
<td>Correctional Studies</td>
<td>CG</td>
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<tr>
<td>Crime and Accident Scene Photography</td>
<td>PC, SC</td>
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<tr>
<td>Crime Scene Investigation</td>
<td>SC, PC</td>
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<tr>
<td>Crime Scene Technology</td>
<td>SC, PC</td>
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<tr>
<td>Detention Services</td>
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<td>Domestic Preparedness and Homeland Security</td>
<td>PC</td>
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<tr>
<td>Driver Operator</td>
<td>CG, GC, EM, MC, PC, PV</td>
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<tr>
<td>Evidence Technology</td>
<td>EM</td>
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<tr>
<td>Emergency Medical Technology</td>
<td>CG, GC, MC, PC, PV, SC</td>
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<tr>
<td>Emergency Management</td>
<td>SM</td>
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<tr>
<td>Emergency Response and Operations</td>
<td>CGCC, EM, GC, MC, PC, PV, SC</td>
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<tr>
<td>Fire Academy</td>
<td>GC, SC</td>
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<tr>
<td>Fire Officer Leadership</td>
<td>MC, CG, EM, GC, PC, PV</td>
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<td>Fire Science</td>
<td>PV, RS, EM, MC</td>
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<tr>
<td>Firefighter Operations</td>
<td>GC, MC, PC, PV, CG, EM</td>
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<tr>
<td>Fingerprint Classification and Identification</td>
<td>PC, SC</td>
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<td>Forensic Investigation</td>
<td>MC</td>
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<td>Forensic Science</td>
<td>CG</td>
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<td>Forensic Technology</td>
<td>PC</td>
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<td>Forensic Science: Crime Lab</td>
<td>SC</td>
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<tr>
<td>Fire Investigation</td>
<td>CG, EM, GC, MC, PC, PV</td>
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<td>Global Citizenship</td>
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<td>Homeland Security</td>
<td>CG, GW</td>
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<td>Hazardous Materials Response</td>
<td>PC</td>
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<td>Judicial Studies</td>
<td>MC</td>
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<td>Justice Studies</td>
<td>CG, SC</td>
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<td>Juvenile Corrections</td>
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<td>Law Enforcement Investigator</td>
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<td>Law Enforcement</td>
<td>SC</td>
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<td>Law Enforcement Training Academy</td>
<td>GC, CG</td>
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<td>Legal Studies</td>
<td>MC</td>
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<tr>
<td>Paralegal</td>
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<td>Paramedicine</td>
<td>CG, GC, PC, PV, MC</td>
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<td>Police Academy Preparation Level I</td>
<td>SC</td>
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<tr>
<td>Police Science</td>
<td>MC, SC</td>
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<tr>
<td>Public Safety Technology</td>
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<td>Tribal Court Advocacy</td>
<td>SC</td>
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<td>Victimology</td>
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### Science, Technology, Engineering and Mathematics

<table>
<thead>
<tr>
<th>Area / Program</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Aircraft Maintenance Technology</td>
<td>CG</td>
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### AREAS/PROGRAMS

<table>
<thead>
<tr>
<th>Program</th>
<th>Institution(s)</th>
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<tbody>
<tr>
<td>Aircraft Maintenance Technology (Part 147)</td>
<td>CG</td>
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<tr>
<td>Airframe Maintenance (Part 147)</td>
<td>CG</td>
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<tr>
<td>Airway Science Technology, Flight Emphasis</td>
<td>CG</td>
</tr>
<tr>
<td>Biomedical Research Technology</td>
<td>GW, SM</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>MC</td>
</tr>
<tr>
<td>Biotechnology and Molecular Biosciences</td>
<td>GC</td>
</tr>
<tr>
<td>Certified Flight Instructor Instrument Airplane Rating</td>
<td>CG</td>
</tr>
<tr>
<td>Engineering Technology</td>
<td>GC, CGC, EM, SM</td>
</tr>
<tr>
<td>Flight Technology</td>
<td>CG</td>
</tr>
<tr>
<td>Powerplant Maintenance (Part 147)</td>
<td>CG</td>
</tr>
<tr>
<td>Nanotechnology</td>
<td>RS</td>
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</table>

**Transportation, Distribution, and Logistics**

<table>
<thead>
<tr>
<th>Program</th>
<th>Institution(s)</th>
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<tbody>
<tr>
<td>Air Conditioning and Electrical Accessories</td>
<td>GW</td>
</tr>
<tr>
<td>Air Conditioning</td>
<td>MC</td>
</tr>
<tr>
<td>Automotive Chassis</td>
<td>GC</td>
</tr>
<tr>
<td>Automotive Drive Trains</td>
<td>GW</td>
</tr>
<tr>
<td>Automotive Electrical Systems</td>
<td>GC</td>
</tr>
<tr>
<td>Automotive Engines and Drive Trains</td>
<td>MC</td>
</tr>
<tr>
<td>Automotive Engine Performance Diagnosis &amp; Air Conditioning</td>
<td>GC</td>
</tr>
<tr>
<td>Automotive Performance Technology</td>
<td>MC</td>
</tr>
<tr>
<td>Automotive Suspension, Steering and Brakes</td>
<td>GW</td>
</tr>
<tr>
<td>Automotive Technology</td>
<td>GC, GW</td>
</tr>
<tr>
<td>Brakes, Alignment, Suspension and Steering</td>
<td>MC</td>
</tr>
<tr>
<td>Engine Performance and Diagnosis</td>
<td>GW, MC</td>
</tr>
<tr>
<td>Transmissions and Power Trains</td>
<td>MC</td>
</tr>
<tr>
<td>Workforce Development: Automotive Technology Level I</td>
<td>RS</td>
</tr>
<tr>
<td>Workforce Development: Automotive Technology Level II</td>
<td>RS</td>
</tr>
</tbody>
</table>

**College Acronyms/Name:**

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

GENERAL GRADUATION REQUIREMENTS (AR 2.3.9)

All students are required to complete the degree and/or certificate requirements as approved by the MCCCD Governing Board. The college reserves the right to make necessary course and program changes in order to meet current educational standards. In addition, students must:

1. be credited in the Admissions and Records Office/Office of Student Enrollment Services with not fewer than: 60 semester credit units in courses numbered 100 or above for the Associate in Arts degree, Associate in Science degree, and Associate in General Studies degree; 60 semester credit units for the Associate in Applied Science degree; 62 semester credits for the Associate in Business degrees. For specific certificate programs, be credited with not fewer than the minimum total of credit units required for the certificate program.

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

2. have earned a minimum of 12 semester credit units toward the degree or certificate at the district college granting the degree or certificate. The 12 hours in the AAS degree curricula may be in the Required Courses area and/or Restricted Electives courses. Courses from the General Education Core and Distribution area are excluded. In cases where the certificate requires fewer than 12 credit units, a minimum of six credit units must be completed at the college awarding the certificate. The minimum of six credit hours in the certificate or degree curricula may be in the Required Courses area and/or the Restricted Electives. Courses from the General Education Core and Distribution areas are excluded.

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

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

3. have filed an application for the degree or certificate with the Admissions and Records Office/Office of Student Enrollment Services on the date determined by the college/center.

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

4. have a minimum cumulative grade point average of 2.000 at the college granting the degree.

5. have a minimum cumulative grade point average of 2.000 in all courses used to fulfill degree requirements.

   Some specific programs have higher grade requirements. It is the student’s responsibility to be aware of these program requirements.

6. have removed, thirty (30) days after the anticipated graduation date, all deficiencies on the record to use those courses toward program completion.

7. have removed any indebtedness to any MCCCD college/center.
8. have paid required degree or certificate application fee.

9. See fee schedule for charges.

**GRADUATION WITH HONORS**

All courses used to fulfill graduation requirements, including courses from other accredited institutions, will be entered in the grade point average calculation for honors designations.

Students who have the following grade point averages will graduate with the following distinctions:

- 3.50 to 3.69 “with distinction”
- 3.70 to 3.89 “with high distinction”
- 3.90 to 4.0 “with highest distinction”

**CERTIFICATES/DEGREES**

The Maricopa Community Colleges offer Certificates of Completion as well as Associate Degrees, one of which is conferred on each student who has completed a program of study. These certificates and degrees are as follows:

1. Certificate of Completion (Career Program Specified);
2. Academic Certificate;
3. General Education Certificate;
4. Associate in Arts;
5. Associate in Science;
6. Associate in Business;
7. Associate in General Studies;

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

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

**LICENSURE DISCLAIMER**

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

**MCCCD GENERAL EDUCATION STATEMENT**

The general education core of the program of study for an associate degree or a certificate helps students develop a greater understanding of themselves, of their relationship with others, and of the richly diverse world in which they live. The general education experience provides students with opportunities to explore broad areas of commonly held knowledge and prepares them to contribute to society through personal, social, and professional interactions with others. General education fosters students’ personal development by opening them to new directions, perspectives,
through its general education requirements, the Maricopa County Community College District is committed to helping students develop qualities and skills that will serve them throughout their lives. General education opportunities encourage students to:

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

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

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

GENERAL EDUCATION DESIGNATIONS
(example: (FYC), [SB], [HU], etc.)

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

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

CATALOG UNDER WHICH A STUDENT GRADUATES (AR 2.2.5)

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

1. A semester in which a student earns course credit will be counted toward continuous enrollment. Non-credit courses, audited courses, failed courses, or courses from which the student withdraws do not count toward the determination of continuous enrollment for catalog purposes.
EXAMPLE A:
Admitted & Earned Course Credit at a Public Community College or University F05 (Active)
Continued at a Public Community College S06, F06 (Active)
Transferred to a University S07 (2005 or any subsequent catalog)

EXAMPLE B:
Admitted & Earned Course Credit at a Public Community College or University F02 (Active)
Enrolled But Earned All Ws, Zs, or Fs S03 (Inactive)
Enrolled in Audit Courses Only F03 (Inactive)
Nonattendance S04 (Inactive)
Transferred to a University F04 (2004 or any subsequent catalog)

2. Students who do not meet the minimum enrollment standard stipulated in No. 1 during three consecutive semesters (fall/spring) and the intervening summer term* at any public Arizona community college or university are no longer considered continuously enrolled, and must meet requirements of the public Arizona community college or university catalog in effect at the time they are readmitted or of any single catalog in effect during subsequent terms of continuous enrollment after readmission.

EXAMPLE A:
Admitted & Earned Course Credit at a Public Community College or University F02 (Active)
Nonattendance S03, F03, S04 (Inactive)
Readmitted & Earned Course Credit at a Public Community College F04 (Active)
Transferred to a University S05 (2004 or any subsequent catalog)

EXAMPLE B:
Admitted & Earned Course Credit at a Public Community College or University F02 (Active)
Readmitted & Earned Course Credit at a Public Community College Su03 (Active)
Nonattendance S03, F03, S04 (Inactive)
Transferred to a University F04 (2002 or any subsequent catalog)

*Students are not obligated to enroll and earn course credit during summer terms, but summer enrollment may be used to maintain continuous enrollment status.

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

EXAMPLE:
Admitted & Earned Course Credit at a Public Community College or University Su04 (Active)
Continued at a Public Community College F04, S05 (Active)
Readmitted & Earned Course Credit at a Public Community College S06 (Active)
Nonattendance F05 (Inactive)
Transferred to a University Su06 (2004 or any subsequent catalog)

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

NOTE: Time Limit for Transfer Coursework
Students should be aware that the receiving institution may have age and credit limits on certain coursework to be used in transfer. Students should be knowledgeable about the policies on time limits for transfer coursework for the institution to which they plan to transfer.

University Transfer and Pathways
Most public university majors are matched with one of the following Maricopa Community Colleges Associate Degree Pathways. Students should consult with an advisor to determine the specific degree requirements for the selected major, or visit the following website: http://aztransfer.com/.

<table>
<thead>
<tr>
<th>Degree Program</th>
<th>Core Areas</th>
<th>Awareness Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Associate in Arts (AA)</strong> 60-63 credits</td>
<td>AGEC-A 35-38 Credits</td>
<td>Core Areas</td>
</tr>
<tr>
<td></td>
<td>Awareness Areas 0 credits</td>
<td>Cultural Diversity in the United States [C] and Global Awareness [G] or Historical Awareness [H]</td>
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<tr>
<td>(Courses may satisfy a Core area as well as one or two Awareness areas simultaneously.)</td>
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<table>
<thead>
<tr>
<th>Degree Program</th>
<th>Core Areas</th>
<th>Awareness Areas</th>
</tr>
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<tbody>
<tr>
<td><strong>Associate in Arts, Elementary Education (AAEE)</strong> 60-63 credits</td>
<td>AGEC-A 35-38 Credits</td>
<td>Core Areas</td>
</tr>
<tr>
<td></td>
<td>Elementary Education Requirements 25 Credits</td>
<td>Education Foundations Restricted Electives</td>
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<table>
<thead>
<tr>
<th>Degree Program</th>
<th>Core Areas</th>
<th>Awareness Areas</th>
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<tbody>
<tr>
<td><strong>Associate in Arts, Fine Arts (AAFA)</strong> 60-64 credits</td>
<td>AGEC-A 35 Credits</td>
<td>Core Areas</td>
</tr>
<tr>
<td></td>
<td>MCCC'D Requirements 0-6 Credits</td>
<td>Communication, Reading</td>
</tr>
<tr>
<td></td>
<td>Fine Arts Requirements 25-29 Credits</td>
<td>Art (28 Credits) Dance (29 Credits) Theatre (25-29 Credits)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Degree Program</th>
<th>Core Areas</th>
<th>Awareness Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Associate in Business, General Requirements (ABUS-GR)</strong> 62-63 credits</td>
<td>AGEC-B 35 Credits</td>
<td>Core Areas</td>
</tr>
<tr>
<td>All Business Majors except CIS</td>
<td>Common Lower Division Requirements 27 Credits</td>
<td>Communication, Reading</td>
</tr>
<tr>
<td></td>
<td>General Electives</td>
<td>Select courses to complete a minimum of 60 credits but no more than a total of 64 semester credits</td>
</tr>
<tr>
<td>Associate in Business, General Requirements (ABUS-SR)</td>
<td>AGEC-B</td>
<td>Core Areas</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
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<td>------------</td>
</tr>
<tr>
<td>62-63 credits</td>
<td>35 Credits</td>
<td>Awareness Areas</td>
</tr>
<tr>
<td>CIS Majors</td>
<td>Common Lower Division Requirements</td>
<td>Communication, Reading</td>
</tr>
<tr>
<td></td>
<td>27 Credits</td>
<td>General Electives</td>
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</table>

<table>
<thead>
<tr>
<th>Associate in Science (AS)</th>
<th>AGEC-S</th>
<th>Core Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>60-64 credits</td>
<td>36-38 Credits</td>
<td>Awareness Areas</td>
</tr>
<tr>
<td></td>
<td>MCCCDD Requirements</td>
<td>Communication, Reading</td>
</tr>
<tr>
<td></td>
<td>0-6 Credits</td>
<td>General Electives</td>
</tr>
</tbody>
</table>

**Additional Programs for University Transfer**

<table>
<thead>
<tr>
<th>Associate in General Studies (AGS)</th>
<th>General Education Core Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 credits</td>
<td>16 Credits</td>
</tr>
<tr>
<td>General Education Distribution</td>
<td>28-29 Credits</td>
</tr>
<tr>
<td>Electives</td>
<td>15-16 Credits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Associate in Applied Science (AAS)</th>
<th>General Education Core Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 credits</td>
<td>16 Credits</td>
</tr>
<tr>
<td>General Education Distribution</td>
<td>28-29 Credits</td>
</tr>
<tr>
<td>Electives</td>
<td>Credits vary</td>
</tr>
<tr>
<td>Required Courses</td>
<td>Credits vary</td>
</tr>
</tbody>
</table>

**Arizona General Education Curriculum (AGEC) AGEC-A, AGEC-B, AGEC-S**

**Description**
The Maricopa County Community College District Arizona General Education Curriculum (MCCCD AGEC) is a 35-38 semester-credit general education certificate that fulfills lower-division general education requirements for students planning to transfer to any Arizona public community college or university. Generally, the MCCCD AGEC transfers as a block without loss of credit.
In most cases, all courses used to satisfy the MCCCD AGEC will apply to graduation requirements of the university major for which the AGEC was designed.

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.aztransfer.com.

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

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

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

Academic Policies that Govern the AGEC A, B, S:
• Requires 35-38 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better. Credit units transferred from outside of the district need to be at a grade of “C” or better. A grade of “C” equals 2.0 on a 4.0 grading scale or equivalent;

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

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

• Uses the following policies to help students complete the required Core and Awareness Areas without exceeding the 35- 38 semester credits
  1. Courses can satisfy a Core area and one or two Awareness areas simultaneously.
  2. A course cannot be used to satisfy more than one Core area requirement.
  3. A course can be used to satisfy the [L] and [SB] or [L] and [HU] requirements simultaneously in the Core area for the AGEC S.
follows the general education policy below:

**General Education Designations** (example: (FYC), [SB], [HU], etc.)
Effective Fall 2000 the course evaluation and/or the general education designation as listed in the Arizona CEG (Course Equivalency Guide) within the Arizona Course Applicability System (AZ- CAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Given that curriculum is dynamic at both MCCCD and the institutions to which MCCCD students transfer, students have the option to petition for course evaluations and/or general education designations.

- 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 AZ- CAS is valid for the term in which the student is awarded credit on the transcript;

- Require that a minimum of 12 semester credits of course work be taken at any of the MCCCD colleges;

- Include both courses and their modular equivalents, either the course or the modular equivalents will satisfy the AGEC;

- Accept one of the courses that is cross-referenced with other courses;

- Provide for exemption from Arizona university admission requirements for: Students who complete the AGEC A, AGEC B, or AGEC S with a minimum 2.5 on a 4.0= A scale, or students who complete an associate degree 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.

**AGEC Requirements**
The 35-38 semester credits required for each of the three AGECs follow. View specific course information via the following website: https://asa.maricopa.edu/departments/center-for-curriculum-transfer-articulation by clicking on the AGEC link.

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

**Credits**

<table>
<thead>
<tr>
<th>Credits</th>
<th>A. Core Areas:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. First-Year Composition (FYC)</td>
</tr>
<tr>
<td></td>
<td>2. Literacy and Critical Inquiry [L]</td>
</tr>
<tr>
<td></td>
<td>AGEC A &amp; AGEC B: Select a course that satisfies the [L] requirement (3).</td>
</tr>
<tr>
<td></td>
<td>AGEC S: Recommend selecting a course that satisfies (L and SB) or (L and HU), or (L and COM), or (L and CRE101) requirements simultaneously.</td>
</tr>
<tr>
<td></td>
<td>3. Mathematical Studies [MA/CS]</td>
</tr>
<tr>
<td></td>
<td>The Mathematics [MA] requirement differs for AGEC A, AGEC B, and AGEC S. To complete the Mathematical Studies requirement for AGEC A and AGEC B, select one course to satisfy Mathematics [MA], and a second course from Computer/ Statistics/Quantitative Applications [CS]. AGEC S does not require the [CS] area.</td>
</tr>
</tbody>
</table>

**AGEC A requires:**
a. Mathematics [MA] (3 credits) AND (Requires a course in college mathematics (MAT142) or college algebra (MAT 150, MAT 151, MAT152) or pre calculus (MAT 187) or any other mathematics course designated with the MA general education value and for which college algebra is a prerequisite.)
b. Computer/Statistics/Quantitative Applications [CS] (3 credits)

**AGEC B requires:**

a. Mathematics [MA] (3 credits) AND Requires a course in brief calculus (MAT212) or a higher-level mathematics course (MAT220 or MAT221 or any course for which these courses are prerequisites). Humanities, Arts and Design [HU] 6 AGEC A and AGEC B: Students are encouraged to choose courses from more than one discipline for a total of six semester credits.

**AGEC S requires:**

a. Mathematics [MA] (3 credits) AND Requires a calculus course (MAT220 or MAT221) or any mathematics course for which MAT220 or MAT221 are prerequisites.

4. **Humanities, Arts and Design [HU]** 6
   AGEC A and AGEC B: Students are encouraged to choose courses from more than one discipline for a total of six semester credits.
   AGEC S: Recommend selecting a course that satisfies both [L] and [SB] or [L] and [HU] requirements simultaneously.

5. **Social Behavioral Sciences [SB]** 6
   AGEC A and AGEC B: Students are encouraged to choose courses from more than one discipline for a total of six semester credits.
   AGEC S: Recommend selecting a course that satisfies both [L] and [SB] or [L] and [HU] requirements simultaneously.

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

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

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

7. **Subject Options**
   (Subject based on major)(AGEC S) 6-8
   Students completing AGEC S, through careful selection of courses that meet the other major or prerequisite requirements for Science degrees, will meet this requirement. Using a transfer guide, select Mathematics courses above Calculus, and/or Science courses from: Astronomy, Biology, Botany, Chemistry, Environmental Science, Geology, Physical Geography, Physics, Zoology.
Students must satisfy two Awareness areas: Cultural Diversity in United States [C] and either Global Awareness [G] or Historical Awareness [H]. However, it is not necessary for students to exceed thirty-five to thirty-eight semester credits to complete any of the three MCCCD AGECs because courses can satisfy a Core area and one or two Awareness areas simultaneously. Therefore, no additional semester credits are required to satisfy the two Awareness areas.

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

**AGEC Area Requirements Descriptions/Definitions**

**Core Areas**

First-Year Composition (FYC)

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

Literacy and Critical Inquiry [L]

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

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

Mathematical Studies

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

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

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

Second, the real-world application of mathematical reasoning requires the student to take a course in statistics or the use of quantitative analysis to solve problems of substance. Third, the use of the computer to assist in serious analytical work is required. Computers are widely used to study the implications of social decisions or to model physical systems.

Mathematics [MA] AGEC A

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

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

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

Humanities, Arts and Design [HU]
Courses must be completed with a grade of “C” or better in the Humanities, Arts and Design Core area. Students are encouraged to choose coursework from more than one discipline. The Humanities, Arts and Design 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 Behavioral Sciences [SB]
Courses must be completed with a grade of “C” or better in the Social Behavioral Sciences Core area. Students are encouraged to choose course work from more than one discipline.

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

Natural Sciences [SQ/SG]
Courses must be completed with a grade of “C” or better in the Natural Sciences Core area.

Courses in the Natural Sciences Core area help the student to develop an appreciation of the scope and limitations of scientific capability to contribute to the quality of society. This Core area emphasizes knowledge of methods of scientific inquiry and mastery of basic scientific principles and concepts, in particular those that relate to matter and energy in living and non-living systems.

Firsthand exposure to scientific phenomena in the laboratory is important in developing and understanding the concepts, principles, and vocabulary of science. At least one of the two laboratory courses required in the Natural Sciences Core area must include an introduction to the fundamental behavior of matter and energy in physical or biological systems.

Natural Sciences [SQ] A & B
The AGEC A and B Natural Sciences Core area requires one laboratory course in natural sciences that includes a substantial introduction to the fundamental behavior of matter and energy in physical or biological systems.
Natural Sciences [SG] A & B
The AGEC A and B Natural Sciences Core area requires a second laboratory course in the natural sciences, for example, from anthropology, astronomy, biology, chemistry, experimental psychology, geology, microbiology, physical anthropology, physical geography, physics, plant biology.

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

SQ = Natural Science-Quantitative SG = Natural Science-General

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

Awareness Areas
Students must satisfy two Awareness areas: Cultural Diversity in U.S. and either Global Awareness or Historical Awareness. Courses can satisfy a Core area and one or two Awareness areas simultaneously. Therefore, no additional semester credits are required to satisfy the two Awareness areas.

Cultural Diversity in the United States [C]
The contemporary “culture” of the United States involves the complex interplay of many different cultures that exist side by side in various states of harmony and conflict. U.S. history involves the experiences not only of different groups of European immigrants and their descendants, but also of diverse groups of American Indians, Hispanic Americans, African Americans and Asian Americans—all of whom played significant roles in the development of contemporary culture and together shape the future of the United States. At the same time, the recognition that gender, class, and religious differences cut across all distinctions of race and ethnicity offers an even richer variety of perspectives from which to view 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 inter- dependence 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 “his- tory” designates a sequence of past events or a narrative whose intent or effect is to represent such a sequence. The requirement presumes that these are human events and that history includes all that has been felt, thought, imagined, said, and done by human beings. History is present in the languages, art, music, literature, philosophy, religion, and the natural sciences, as well as in the social science traditionally called history.

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

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

II. General Electives

Purpose of the Degree
The Associate in Arts degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Liberal Arts or programs of study other than business or science. Generally, the degree will transfer as a block without loss of credit to Arizona’s public universities and other institutions with district-wide articulation agreements.

In most cases, courses used to satisfy the MCCCd Associate in Arts will apply to university graduation requirements of the university major for which the Associate in Arts is designed. Information regarding the articulation of the Associate in Arts with majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com.

Academic Policies that Govern the Associate in Arts Degree
• Completion of the Associate in Arts and the AGEC-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
• The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts degree.
• A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better; Credit units transferred from outside of the district need to be at a grade of “C” or better. A grade
of “C” equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a “C” or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions;

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

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

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

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

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

• Maricopa courses and external courses evaluated as Maricopa equivalents or departmental electives (for example, HIS-ELC, MATELC), that are numbered 100 level or higher, and completed with a grade of “C” or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet elective requirements with courses that are transferable and applicable to their intended university degree. For appropriate course selection, students should consult with an advisor.

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

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

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

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

The 60-64 semester credits required for the Associate in Arts follow. View specific course information via the following web-site: https://asa.maricopa.edu/departments/center-for-curriculum-transfer-articulation by clicking on the statewide AGEC link. The AGEC A, B, S, and AGEC Matrix identify the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply.

I. MCCCD General Education

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

MCCCD AGEC-A

1. Core Areas

   a. First-Year Composition (FYC)
   b. Literacy and Critical Inquiry [L]
   c. Mathematical Studies [MA/CS]

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

      1) Mathematics [MA] A (3 credits)
         Note: requires a course in college mathematics (MAT142) or college algebra (MAT 150, MAT 151, MAT152) or pre calculus (MAT 187) or any other mathematics course designated with the MA general education value and for which college algebra is a pre-requisite.
         AND
      2) Computer/Statistics/Quantitative Applications [CS] (3 credits)

   d. Humanities, Arts and Design [HU]

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

   e. Social Behavioral Sciences [SB]

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

   f. Natural Sciences [SQ/SG]

      To complete the Natural Sciences requirement: Select four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of eight (8) semester credits, OR eight (8) semester credits of [SQ]. Students cannot take eight (8) semester credits of [SG] to meet the Natural Sciences requirement. The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the AZ Course Applicability System (AZCAS) for information on equivalencies.

2. Awareness Areas:

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

   Cultural Diversity in the United States [C] AND
   Global Awareness [G] OR
   Historical Awareness [H]
3. MCCCD Additional Requirements 0-6
Students must satisfy Oral Communication and Critical Reading areas. However, it is not necessary for students to exceed the thirty-five semester credits required in order to complete the MCCCD Additional Requirements because courses can satisfy a Core Area and MCCCD Additional Requirements simultaneously. Therefore no additional semester credits are required to satisfy Oral Communication and Critical Reading.

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

Select from the following options:

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

b. Critical Reading
A total of three (3) semester credits is required for the Critical Reading area. However, if students complete 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: www.aztransfer.com/.

Maricopa courses and external courses evaluated as Maricopa equivalents or departmental electives (for example, HIS-ELC, MATELC), that are numbered 100 level or higher, and completed with a grade of “C” or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet elective requirements with courses that are transferable and applicable to their intended university degree. For appropriate course selection, students should consult with an advisor.

For some majors, students must demonstrate 4th semester proficiency at the 202 course level to satisfy the Non-English Language Requirements. Students should consult the Arizona Transfer Pathway Guides and/or the University Transfer Guides to determine this requirement for the major at the university to which they intend to transfer. If required, it is recommended that students choose Maricopa courses as electives to meet this requirement as part of the Associate in Arts degree.
Students who are undecided on a major or university should consult an advisor. Not all majors have common courses, so it is recommended that students consult with an advisor for a list of common courses or assistance with selecting appropriate electives.

ASSOCIATE IN ARTS TOTAL CREDITS: 60-64

**Associate in Arts - Elementary Education (AAEE)**

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

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

II. Elementary Education Requirements
Education Foundations
Restricted Electives

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

Generally, the degree transfers as a block without loss of credit to Arizona's public universities. In most cases, courses applied to the MCCCD Associate in Arts in Elementary Education also apply to graduation requirements of the university major for which the AAEE was designed.

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

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

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

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

- Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.
• Is governed by the following policies to enable students to satisfy AGEC-A requirements without exceeding the 35 semester credits:

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

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

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

• Maricopa courses and external courses evaluated as Maricopa equivalents or departmental electives (for example, HIS-ELC, MATELC), that are numbered 100 level or higher, and completed with a grade of “C” or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet elective requirements with courses that are transferable and applicable to their intended university degree. For appropriate course selection, students should consult with an advisor.

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

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

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

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

I. MCCCD General Education Requirements
A. MCCCD AGEC - A

1. Core Areas 35-38
   a. First-Year Composition [FYC] 6
      ENG101/102 OR ENG107/108
   b. Mathematics Studies [MA] and 6
      Computer/Statistics/Quantitative Applications [CS]
         1) MAT142 [MA] College Mathematics, or higher
         2) (NOTE: MAT256, MAT257, MAT182, and MAT206 are excluded)
            AND
         2) CIS105 [CS] Survey of Computer Information Systems, OR
            BPC110 [CS] Computer Usage and Applications
   c. Literacy and Critical Inquiry [L] 3
      Select the following:
      COM225 Public Speaking
   d. Humanities, Arts and Design [HU] 6
      1) Select (3) semester credits from the following courses:
         ARH100 Introduction to Art
         ARH101 Prehistoric through Gothic Art
         ARH102 Renaissance through Contemporary Art
         THE111 Introduction to Theatre
         DAH100 Introduction to Dance
         DAH201 World Dance Studies
         MHL140 Survey of Music History
         MHL143 Music in World Cultures AND
      2) Select (3) semester credits from the following courses:
         EDU/ENH291 Children’s Literature
         ENH110 Introduction to Literature
         ENH241 American Literature Before 1860
         ENH242 American Literature After 1860
         HUM250 or
         HUM251 Ideas and Values in the Humanities
   e. Social Behavioral Sciences [SB] 6
      1) Select 3 semester credits from the following courses:
         HIS103 United States History to 1865
         POS110 American National Government
         GCU/POS227 United States and Arizona Social Studies
         AND
      2) Select 3 semester credits from the following courses:
         ECH/CFS176 Child Development
         CFS205 Human Development
         HIS104 United States History 1865 to Present
         PSY101 Introduction to Psychology
         GCU121 World Geography I: Eastern Hemisphere
         GCU122 World Geography II: Western Hemisphere
         ECN211 Macroeconomic Principles
         ECN212 Microeconomic Principles
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 (Life Science) and SG (Physical Sciences, Earth/Space Sciences) courses from the following categories:
1) Life Sciences-Select 4 semester credits of SQ or SG from BIO AND
2) Physical Sciences OR Earth/Space Sciences - Select 4 semester hours of SQ or SG credits from the
following prefixes: AGS, ASM, AST, CHM, GPH, GLG, PHS, PHY.
Note: Students are advised to check with the university they plan to attend as requirements for lab sciences
may vary.

Awareness Areas  0
The MCCCD 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.

II. Elementary Education Requirements  25
A total of 25 semester credits are required to satisfy the Elementary Education Requirements.
A. Education Foundations  20
Complete the following courses to satisfy the Education Foundations requirements:
  220. EDU220  Introduction to Serving English Language Learners (ELL)
  221. EDU221  Introduction to Education
  222. EDU222  Introduction to the Exceptional Learner
  EDU230 Cultural Diversity in Education
  256. MAT256  Investigating Quantity: Number, Operations, & Numeration Systems
  257. MAT257  Investigating Geometry, Probability, and Statistics
B. Restricted Electives  5
A total of 5 semester credits are required to satisfy the Restricted Electives.
Courses must transfer to all public Arizona universities as Elective Credit, Departmental Elective, or Equivalent to a
university course as indicated in the Arizona Course Equivalency Guide in effect when the course is taken. Courses
identified as Non-transferable in the Arizona Course Equivalency Guide cannot be used to satisfy this requirement.
Content Area Electives
Select 5 credits from the following:
  Any ARH, ART, CIS, BPC, ENG, ENH, GPH, HIS, MHL,
  MTC, POS, THE, THF, THP prefixed course(s) Any EDU prefixed course(s) (except EDU250)
Any MAT (courses numbered higher than 142 (except MAT256 and MAT257) Any Foreign Language course(s)
Any Natural Science course(s)
CFS/ECH176 Child Development
CFS205 Human Development
EED215 Early Learning: Health, Safety, Nutrition and Fitness
AAA/CPD115 Creating College Success

AAEE TOTAL CREDITS: 60-63

NOTE: The following courses meet the state teacher certification requirement for United States and Arizona Constitutions:
United States—HIS103, POS110, POS220, POS222, or GCU/POS227
Arizona—POS220, POS221, or GCU/POS227

**Associate in Arts, Fine Arts (AAFA) - Art**

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

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

II. Fine Arts Requirements - Art

**Purpose of the Degree**
The Associate in Arts, Fine Arts - Art degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Fine Arts. The degree is designed to prepare students to meet selective admission criteria for programs such as the Bachelor of Fine Arts, which may require a portfolio or performance requirement.
The semester credits used to satisfy the MCCCD Associate in Arts, Fine Arts - Art degree may apply to university graduation requirements of the university major for which the degree is designed. Information regarding the articulation of the degree with majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com.

**Academic Policies that Govern the Associate in Arts, Fine Arts - Art Degree**
- Completion of the Associate in Arts, Fine Arts - Art degree and the AGEC-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
- The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts, Fine Arts - Art degree.
- A minimum of 63 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better; Credit- it units transferred from outside of the district need to be at a grade of “C” or better. A grade of “C” equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a “C” or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.
- Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.
- The General Education Requirements for AGEC-A may be completed in 35 semester credits with the following stipulations:
  » Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
A courses cannot be used to satisfy more than one Core Area

- General Education Courses can satisfy multiple areas with-in 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 (XXXXDCE), or general elective credit (Elective) at all Arizona public universities. The course’s evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. View specific course information via the following website: https://asa.maricopa.edu/departments/center-for-curriculum-transfer-articulation by clicking on the statewide AGEC link.
- Maricopa courses and external courses evaluated as Maricopa equivalents or departmental electives (for example, HIS-ELC, MATELC), that are numbered 100 level or higher, and completed with a grade of “C” or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet elective requirements with courses that are transferable and applicable to their intended university degree. For appropriate course selection, students should consult with an advisor.
- Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC-A or Associate in Arts, Fine Arts Degree.
- Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts, Fine Arts - Art requirements.
- If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.
- Courses completed at one of the Maricopa Community Colleges to satisfy Common Courses must be transferable as elective or better to the universities that have the shared majors listed on a Common Course Matrix. A shared major is a university degree program that has similar academic preparation to one or more degree programs at other Arizona public universities as listed on the Common Course Matrices. For appropriate course selection, students should consult with an advisor.

Degree Requirements

The 63 semester credits required for the Associate in Arts, Fine Arts - Art degree follow. View specific course information via the following website: https://asa.maricopa.edu/departments/center-for-curriculum-transfer-articulation by clicking on the statewide AGEC link. The AGEC A, B, S, and the AGEC Matrix identify the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply.

I. MCCCD General Education

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

MCCCD AGEC-A

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

   To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] A and a second course from Computer/Statistics/Quantitative Applications [CS].
   1. Mathematics [MA] A (3 credits)

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

AND

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

d. Humanities, Arts and Design [HU] (6 credits)

Students are encouraged to choose course work from more than one discipline for a total of six semester credits. Select the following:

ARH101 Prehistoric Gothic Art (3 credits)

e. Social Behavioral Sciences [SB] (6 credits)

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 credits)

To complete the Natural Sciences requirement: Select four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of eight (8) semester credits, OR eight (8) semester credits of [SQ]. Students cannot take eight (8) semester credits of [SG] to meet the Natural Sciences requirement. The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the AZ Course Applicability System (AZCAS) for information on equivalencies.

2. Awareness Areas:

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

Cultural Diversity in the United States [C] AND

Global Awareness [G] OR

Historical Awareness [H]

3. MCCCD Additional Requirements 0-6

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

a. Oral Communication

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

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

b. Critical Reading

A total of three (3) semester credits is required for the Critical Reading area. However, if students complete 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. Fine Arts Requirements - Art 28

A minimum of 28 credits are required to satisfy the Fine Arts Requirements - Art Foundations

ADA/ART112 Two-Dimensional Design          3
ADA/ART115 Three-Dimensional Design          3
ARH102 Renaissance Through Contemporary Art 3
ART111 Drawing I                          3
ART113 Color                              3
ART255AB The Portfolio                     3
Restricted Electives                       12
ART116 Life Drawing                       3
ART122 Drawing and Composition II          3
ART131 Photography I                      3
ART151 Sculpture I                        3
ART161 Ceramics I                         3
ART165 Watercolor Painting I               3
ART167 Painting                           3
ART250 Introduction to Printmaking         3

AAFA-ART TOTAL CREDITS: 63

Associate in Arts, Fine Arts (AAFA) - Dance

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

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

II. Fine Arts Requirements - Dance

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

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

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

• Completion of the Associate in Arts, Fine Arts - Dance degree and the AGEC-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
• The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts, Fine Arts - Dance degree.
• A minimum of 64 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better; Credit units transferred from outside of the district need to be at a grade of “C” or better. A grade of “C” equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a “C” or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions;
• Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.
• The General Education Requirements for AGEC-A may be completed in 35 semester credits with the following stipulations
  » Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  » A 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. View specific course information via the following website: https://asa.maricopa.edu/departments/center-for-curriculum-transfer-articulation by clicking on the statewide AGEC link.
• Maricopa courses and external courses evaluated as Maricopa equivalents or departmental electives (for example, HIS-ELC, MATELC), that are numbered 100 level or higher, and completed with a grade of “C” or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet elective requirements with courses that are transferable and applicable to their intended university degree. For appropriate course selection, students should consult with an advisor.
• Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC-A or Associate in Arts, Fine Arts-Dance Degree.
• Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts, Fine Arts - Dance requirements.
• If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.
• Courses completed at one of the Maricopa Community Colleges to satisfy Common Courses must be transferable as elective or better to the universities that have the shared majors listed on a Common Course Matrix. A shared major is a university degree program that has similar academic preparation to one or more degree programs at other Arizona public universities as listed on the Common Course Matrices. For appropriate course selection, students should consult with an advisor.

Degree Requirements
The 64 semester credits required for the Associate in Arts, Fine Arts - Dance degree follow. View specific course information via the following website: https://asa.maricopa.edu/departments/center-for-curriculum-transfer-articulation by clicking on the statewide AGEC link. The AGEC A, B, S, and AGEC Matrix identify the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply.

I. MCCCD General Education
The MCCCD General Education includes two areas: MCCCD AGEC-A and MCCCD Additional Requirements.
MCCCD AGEC-A
  1. Core Areas 35
a. First-Year Composition (FYC)  
   b. Literacy and Critical Inquiry [L]  
   c. Mathematical Studies [MA/CS]  
      To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] A and a second course from Computer/ Statistics/Quantitative Applications [CS].
      1) Mathematics [MA] A (3 credits)  
         Note: requires a course in college mathematics or college algebra or pre calculus or any other mathematics course for which college algebra is a pre-requisite.  
         AND  
      2) Computer/Statistics/Quantitative Applications [CS] (3 credits)  
   d. Humanities, Arts and Design [HU]  
      Students are encouraged to choose course work from more than one discipline for a total of six semester credits.
      Select from the following options to complete three credits:
         DAH100 Introduction to Dance 3  
         DAH201 World Dance Studies 3  
   e. Social Behavioral Sciences [SB]  
      Students are encouraged to choose course work from more than one discipline for a total of six semester credits.
   f. Natural Sciences [SQ/SG]  
      To complete the Natural Sciences requirement: Select four (4) semester credits of [SQ] and four (4) semester credits of [SG] for a total of eight (8) semester credits, OR eight (8) semester credits of [SQ]. Students cannot take eight (8) semester credits of [SG] to meet the Natural Sciences requirement. The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the AZ Course Applicability System (AZCAS) for information on equivalencies.
      Select from the following options to complete four credits:
         BIO160 Introduction to Human Anatomy and Physiology 4  
         BIO201 Human Anatomy and Physiology 4  

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

3. MCCCD Additional Requirements 0-6
   Students must satisfy Oral Communication and Critical Reading areas. However, it is not necessary for students to exceed the thirty-five semester credits required in order to complete the MCCCD Additional Requirements because courses can satisfy a Core Area and MCCCD Additional Requirements simultaneously. Therefore no additional semester credits are required to satisfy Oral Communication and Critical Reading.
   a. Oral Communication  
      A total of three (3) semester credits is required for Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core, then the Oral Communication requirement has been satisfied and additional electives may be taken.
Select from the following options:
- COM100 [SB] (3 credits) OR
- COM100AA & COM100AB & COM100AC [SB] (3 credits) OR
- COM110 [SB] (3 credits) OR
- COM110AA & COM110AB & COM110AC [SB] (3 credits) OR
- COM225 [L] (3 credits) OR COM230 [SB] (3 credits)

b. Critical Reading
A total of three (3) semester credits is required for the Critical Reading area. However, if students complete 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

III. Fine Arts Requirements - Dance 29
A minimum of 29 credits are required to satisfy the Fine Arts Requirements - Art

Part I 12
Select the following:
- DAN150 Dance Performance I 1
- DAN210 Dance Production I 3
- DAN221 Rhythmic Awareness I 3
- DAN264 Choreography I 3
- DAN280 Dance Practicum 2

Part II 9
Select from the following options to complete a minimum of nine-semester credits. Students must attain Level III competency in ballet and modern dance courses:
- DAN131 Ballet I (1) 1-2
- DAN134 Ballet II (1) 1-2
- DAN231 Ballet III (1) 1-2
- DAN231AA Ballet III: Intensive (2) 2-4
- DAN234 Ballet IV (1) 1-2
- DAN234AA Ballet IV: Intensive (2) 2-4
- DAN237 Ballet Pointe I 1
- DAN132 Modern Dance I (1) 1-2
- DAN135 Modern Dance II (1) 1-2
- DAN232 Modern Dance III (1) 1-2
- DAN232AA Modern Dance III: Intensive (2) 2-4
- DAN235 Modern Dance IV (1) 1-2
- DAN235AA Modern Dance IV: Intensive (2) 2-4
- DAN133 Jazz Dance I 1
- DAN136 Jazz Dance II 1
- DAN233 Jazz Dance III 1
- DAN233AA Jazz Dance III: Intensive 2
- DAN236 Jazz Dance IV 1
- DAN236AA Jazz Dance IV: Intensive 2
- DAN290++ Dance Conservatory I (any module) 3
- DAN291++ Dance Conservatory II (any module) 3
- DAN292++ Dance Conservatory III (any module) 3

Part III: Restricted Electives 9
Students can choose to complete a combination of up to three credits in Part III and the remaining credits in Part IV; or students can opt to complete all Elective credits in Part IV. No more than three credits may be selected from the following DAN prefixed courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN102++</td>
<td>Hip Hop (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN202++</td>
<td>Hip Hop (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN103++</td>
<td>Break Dancing (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN203++</td>
<td>Break Dancing (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN104++</td>
<td>Ballroom (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN204++</td>
<td>Ballroom (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN105++</td>
<td>Swing (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN205++</td>
<td>Swing (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN106++</td>
<td>Latin (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN206++</td>
<td>Latin (any module)</td>
<td>1</td>
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<tr>
<td>DAN107++</td>
<td>Country (any module)</td>
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<td>DAN207++</td>
<td>Country (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN108++</td>
<td>Tango (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN208++</td>
<td>Tango (any module)</td>
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</tr>
<tr>
<td>DAN115++</td>
<td>Contemporary Dance (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN120++</td>
<td>World Dance (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN125++</td>
<td>Social Dance (any module)</td>
<td>1</td>
</tr>
<tr>
<td>DAN129</td>
<td>Musical Theatre Dance I</td>
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<tr>
<td>DAN130</td>
<td>Musical Theatre Dance II</td>
<td>1</td>
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<tr>
<td>DAN229</td>
<td>Musical Theatre Dance III</td>
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<td>DAN230</td>
<td>Musical Theatre Dance IV</td>
<td>1</td>
</tr>
<tr>
<td>DAN133</td>
<td>Jazz Dance I</td>
<td>1</td>
</tr>
<tr>
<td>DAN136</td>
<td>Jazz Dance II</td>
<td>1</td>
</tr>
<tr>
<td>DAN233</td>
<td>Jazz Dance III</td>
<td>1</td>
</tr>
<tr>
<td>DAN233AA</td>
<td>Jazz Dance III: Intensive</td>
<td>2</td>
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<tr>
<td>DAN236</td>
<td>Jazz Dance IV</td>
<td>1</td>
</tr>
<tr>
<td>DAN236AA</td>
<td>Jazz Dance IV: Intensive</td>
<td>2</td>
</tr>
<tr>
<td>DAN140</td>
<td>Tap Dance I</td>
<td>1</td>
</tr>
<tr>
<td>DAN141</td>
<td>Dance Workshop</td>
<td>1</td>
</tr>
<tr>
<td>DAN145</td>
<td>Tap Dance II</td>
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</tr>
<tr>
<td>DAN146</td>
<td>Tap Dance Ensemble</td>
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</tr>
<tr>
<td>DAN240</td>
<td>Tap Dance III</td>
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<tr>
<td>DAN245</td>
<td>Tap Dance IV</td>
<td>1</td>
</tr>
<tr>
<td>DAN150</td>
<td>Dance Performance I</td>
<td>1</td>
</tr>
<tr>
<td>DAN155</td>
<td>Dance Performance II</td>
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<td>DAN250</td>
<td>Dance Performance III</td>
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<tr>
<td>DAN255</td>
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<td>DAN164</td>
<td>Improvisation</td>
<td>1</td>
</tr>
<tr>
<td>DAN131</td>
<td>Ballet I</td>
<td>1</td>
</tr>
<tr>
<td>DAN134</td>
<td>Ballet II</td>
<td>1</td>
</tr>
<tr>
<td>DAN231</td>
<td>Ballet III</td>
<td>1</td>
</tr>
<tr>
<td>DAN231AA</td>
<td>Ballet III: Intensive</td>
<td>(2) 2-4</td>
</tr>
</tbody>
</table>
DAN234 Ballet IV          1
DAN234AA Ballet IV: Intensive         (2) 2-4
DAN237 Ballet Pointe I          1
DAN132 Modern Dance I          1
DAN135 Modern Dance II          1
DAN232 Modern Dance III (1)          1-2
DAN232AA Modern Dance III: Intensive         2
DAN235 Modern Dance IV (1)          1-2
DAN235AA Modern Dance IV: Intensive         2
DAN290++ Dance Conservatory I (any module)      1-3
DAN291++ Dance Conservatory II (any module)      1-3
DAN292++ Dance Conservatory III (any module)      1-3
*DAN298++ Special Projects (any module)       1-3
Part IV: Restricted Electives: Dance Theory Electives:      6-9
DAH classes cannot be used as both a Humanities core requirement and as a Dance Theory Elective (Part IV).

DAH100 Introduction to Dance         3
DAH110 Dance in Film         3
DAH190 Discovering Dance Careers         1
DAH201 World Dance Studies         3
DAH210 History of Ballet and Modern Dance         3
DAH250 Dance in Popular Culture         3
DAH255 Hip Hop Arts, Aesthetic and Culture         3
DAN265 Choreography II         3
DAN138 Dance Seminar I         1
DAN170 Dance Kinesiology         3
DAN201++ Special Topics: Dance (any module)      1-3
DAN211 Dance Production II         3
DAN222 Rhythmic Awareness II         3
DAN238 Dance Seminar II         1
DAN241 Dance Notation I         3
DAN272 Dance Technology         3
DAN275 Choreography for Film and Video         3
DAN282++ Service Learning Experience in Dance (any module)      1-3
DAN293 Teaching Dance in Elementary Education         3
DAN294 Teaching Dance in Secondary Education         3
DAN295 Teaching and Management of Studio Dance         3
*DAN296++ Cooperative Education (any module)      1-4
*DAN298++ Special Projects (any module)      1-3

* Selection of DAN296 or 298 courses to satisfy degree requirements should be done in consultation with a program advisor or faculty member as Special Projects courses do not currently transfer to any of the three Arizona state public universities.

AAFA-DANCE TOTAL CREDITS:        64

Associate in Arts, Fine Arts (AAFA) - Theatre
Description
The Maricopa County Community College District Associate in Arts, Fine Arts - Theatre degree requires a minimum of 60-64 semester credits for the program of study. The degree includes the following components:
I. General Education:
Arizona General Education Curriculum for Arts (AGEC-A)
MCCCD Additional Requirements

II. Fine Arts Requirements - Theatre
Purpose of the Degree
The Associate in Arts, Fine Arts - Theatre degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Fine Arts. The degree is designed to prepare students to meet selective admission criteria for programs such as the Bachelor of Fine Arts, which may require a portfolio or performance requirement.
The semester credits used to satisfy the MCCCD Associate in Arts, Fine Arts - Theatre may apply to university graduation requirements of the university major for which the degree is designed. Information regarding the articulation of the degree with majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com.

Academic Policies that Govern the Associate in Arts, Fine Arts - Theatre Degree
• Completion of the Associate in Arts, Fine Arts - Theatre and the AGEC-A provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
• The graduation policies within the general catalog must be satisfied for completion of the Associate in Arts, Fine Arts - Theatre degree.
• A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better; Credit units transferred from outside of the district need to be at a grade of “C” or better. A grade of “C” equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a “C” or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.
• Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.
• The General Education Requirements for AGEC-A may be completed in 35 semester credits with the following stipulations
  » Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  » A courses cannot be used to satisfy more than one Core Area
• General Education Courses can satisfy multiple areas with- in 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 Applianceability System as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities. The course’s evaluation and/or general education designation is valid for the term in which the student is awarded credit on the transcript. View specific course information via the following website: https://asa.maricopa.edu/ departments/center-for-curriculum-transfer-articulation by clicking on the statewide AGEC link.
• Maricopa courses and external courses evaluated as Maricopa equivalents or departmental electives (for example, HIS- ELC, MATELC), that are numbered 100 level or higher, and completed with a grade of “C” or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It
is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet elective requirements with courses that are transferable and applicable to their intended university degree. For appropriate course selection, students should consult with an advisor.

- Courses transferred from another regionally accredited institution to one of the Maricopa Community Colleges will be evaluated by the college for inclusion in the AGEC-A or Associate in Arts, Fine Arts - Theatre Degree.
- Courses and their modular equivalents will satisfy AGEC-A and Associate in Arts, Fine Arts - Theatre requirements.
- If a course is cross-referenced with one or more other courses, then only one of the cross-referenced courses will be accepted to meet requirements.
- Courses completed at one of the Maricopa Community Colleges to satisfy Common Courses must be transferable as elective or better to the universities that have the shared majors listed on a Common Course Matrix. A shared major is a university degree program that has similar academic preparation to one or more degree programs at other Arizona public universities as listed on the Common Course Matrices. For appropriate course selection, students should consult with an advisor.

Degree Requirements
The 60-64 semester credits required for the Associate in Arts, Fine Arts - Theatre follow. View specific course information via the following website: https://asa.maricopa.edu/departments/center-for-curriculum-transferarticulation by clicking on the state-wide AGEC link. The AGEC A, B, S, and AGEC Matrix identify the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply.

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

MCCCD AGEC-A
1. Core Areas 35
   a. First-Year Composition (FYC) 6
   b. Literacy and Critical Inquiry [L] 3
   c. Mathematical Studies [MA/CS] 6
      To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] A and a second course from Computer/Statistics/Quantitative Applications [CS].
      1) Mathematics [MA] A (3 credits) Note: requires a course in college mathematics or college algebra or pre calculus or any other mathematics course for which college algebra is a pre-requisite.
      AND
      2) Computer/Statistics/Quantitative Applications [CS] (3 credits)
   d. Humanities, Arts and Design [HU] 6
      Students are encouraged to choose course work from more than one discipline for a total of six semester credits.
      Select from the following:
      HUM/THE205 Introduction to Cinema 3
   e. Social 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 [SQ] for a total of eight (8) semester credits, OR eight (8) semester credits of [SQ]. Students cannot take eight (8) semester credits of [SQ] to meet the Natural Sciences requirement. The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection. Students should also access the AZ Course Equivalency Guide (CEG) within the AZ Course Applicability System.
(AZCAS) for information on equivalencies.

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

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

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

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

   b. Critical Reading
      A total of three (3) semester credits is required for the Critical Reading area. However, if students complete 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. Fine Arts Requirements - Theatre 25-29
   A minimum of 25 credits are required to satisfy the Fine Arts Requirements - Theatre

   Foundations 16-17
   Select the following:
   THE111 Introduction to Theatre 3
   THP112 Acting I 3
   THF115 Makeup for Stage and Screen 3
   THP201AA Theatre Production I OR
   THP201AB Theatre Production II 2
   THP213 Introduction to Technical Theatre 3
   THP217 Introduction to Design Scenography 3

   Restricted Electives 9-12
   Students may take a variety of courses, or they may choose to emphasize a particular aspect of theatre, such as acting, technical theatre, cinema, theatre education, directing, movement, musical theatre, etc. Students should consult with their campus theatre advisor for the restricted electives recommended to attain each area of emphasis.
   Select from the following options to complete a minimum of 9 semester credits:
HUM/THE206 Introduction to Television Arts 3
HUM/THF210 Contemporary Cinema 3
THE118 Playwriting 3
THF120AA Audition Techniques for Stage and Screen: Prepared Monologue 1
THF120AB Audition Techniques for Stage and Screen: Cold Readings 1
THP130 Stage Combat 3
THP131 Stage Movement 3
THP151 Theatre for Youth 3
THF209 Acting for the Camera 3
THP211 Creative Drama 3
THP212 Acting II 3
THP214 Directing Techniques 3
THP216 Beginning Stage Lighting 3
THP219 Introduction to Puppetry 3
THF219 Advanced Acting for the Camera 3
THP226 Theatrical Design: Costuming 3
COM/THP241 Oral Interpretation of Literature 3
THP262 Entertainment Industry Design Drafting 3
THP267 Painting Techniques for Film, TV & Theatre 3
THP268 Opportunities in Production 3
THP269 Technical Theatre Portfolio Development 3
MUP/THE270 Musical Theatre Workshop 3
COM/THP271 Voice and Diction 3
THP281 Production and Acting I 3
THP298AA-AC Special Projects 3

AAFA-THEATRE TOTAL CREDITS: 60-64

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

I. General Education:
   Arizona General Education Curriculum for Science (AGEC-S) MCCCD Additional Requirements
   Arizona General Education Curriculum for Science (AGEC-S) MCCCD Additional Requirements

II. General Electives

Purpose of the Degree
The Associate in Science degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors with more stringent mathematics and mathematics-based science requirements. Generally, the degree will transfer as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements.

In most cases, courses used to satisfy the MCCCD Associate in Science will apply to university graduation requirements of the university major for which the Associate in Science is designed. Information regarding the articulation of the Associate in Science with majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com.

Academic Policies that Govern the Associate in Science Degree

- Completion of the Associate in Science and the AGEC-S provides for exemption from Arizona public university admission requirements for Arizona residents who have a minimum Grade Point Average of 2.0 on a 4.0=A scale and a minimum 2.5 on a 4.0=A scale for non-residents.
- The graduation policies within the general catalog must be satisfied for completion of the Associate in Science degree.
- A minimum of 60 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better; Credit units transferred from outside of the district need to be at a grade of “C” or better. A grade of
“C” equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a “C” or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions.

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

- The General Education Requirements for AGEC-S may be completed in 36-38 semester credits with the following stipulations:
  - Courses can satisfy a Core Area and one or two Awareness Areas simultaneously
  - A course cannot be used to satisfy more than one Core Area in the AGEC A and B.
  - A course can be used to satisfy the [L] and [SB] or [L] and [HU] requirements simultaneously in the Core area for the AGEC S.

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

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

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

- Maricopa courses and external courses evaluated as Maricopa equivalents or departmental electives (for example, HIS-ELC, MATELC), that are numbered 100 level or higher, and completed with a grade of “C” or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet elective requirements with courses that are transferable and applicable to their intended university degree. 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.

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

Degree Requirements
The 60-64 semester credits required for the Associate in Science follow. View specific course information via the following website: https://asa.maricopa.edu/departments/center-for-curriculum-transfer-articulation by clicking on the statewide AGEC link. The AGEC A, B, S, and AGEC Matrix identify the courses in alpha-order by prefix as well as the Core Areas and Awareness Areas where the course will apply.
I. MCCCD General Education
The MCCCD General Education includes two areas: MCCCD AGEC-S and MCCCD Additional Requirements.

MCCCD AGEC-S

1. Core Areas: 36-38
   a. First-Year Composition (FYC) 6
   b. Literacy and Critical Inquiry [L] 0-3
      Recommend selecting a course that satisfies L (Literacy and Critical Inquiry) and SB (Social Behavioral Sciences) OR L (Literacy and Critical Inquiry) and HU (Humanities, Arts and Design) or L (Literacy and Critical Inquiry) and COM or L (Literacy and Critical Inquiry) and CRE101 requirements simultaneously.
   c. Mathematical Studies [MA] 4
      To complete the Mathematical Studies requirement, select one course to satisfy Mathematics [MA] S.
         1) Mathematics [MA] S (4 credits)
            Select a calculus course MAT220 or MAT221, or any mathematics course for which MAT220 or MAT221 is a prerequisite.
   d. Humanities, Arts and Design [HU] 6
      Students are encouraged to choose course work from more than one discipline for a total of six semester credits. Select a course that satisfies both [L] and [HU] requirements simultaneously.
   e. Social Behavioral Sciences [SB] 6 Students are encouraged to choose course work from more than one discipline for a total of six semester credits. Select a course that satisfies both [L] and [HU] requirements simultaneously.
   f. Natural Sciences 8
      To complete the Natural Sciences requirement: Select eight (8) semester credits of either general chemistry CHM151 & CHM151LL, and CHM152 & CHM152LL OR Eight (8) semester credits of university physics PHY115 & PHY116, or PHY121 & PHY131 OR Eight (8) semester credits of general biology, BIO181 & BIO182 appropriate to the major.
   g. Subject Options 6-8
      (subject based on major)
      Students completing AGEC S, through careful selection of courses that meet the other major or prerequisite requirements for Science degrees, will meet this requirement. Using a transfer guide, select Mathematics courses above Calculus, and/or Science courses from: Astronomy, Biology, Botany, Chemistry, Environmental Science, Geology, Physical Geography, Physics, Zoology.

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

3. MCCCD Additional Requirements 0-6 Students must satisfy Oral Communication and Critical Reading areas. However, it is not necessary for students to exceed the thirty-six to thirty-eight semester credits required in order to complete the MCCCD Additional Requirements.
   a. Oral Communication
      A total of three (3) semester credits is required for Oral Communication. However, if students select a communication course that satisfies both the Oral Communication area and an area within the Core, then the Oral Communication requirement has been satisfied and additional electives may be taken.
      Select from the following options:
      COM100 [SB] (3 credits) OR
      COM100AA & COM100AB & COM100AC [SB] (3 credits) OR
      COM110 [SB] (3 credits) OR
COM110AA & COM110AB & COM110AC [SB] (3 credits) OR
COM225 [L] (3 credits) OR
COM230 [SB] (3 credits)

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

CRE101 [L] OR equivalent as indicated by assessment

II. General Electives
Select courses to complete a minimum of 60 semester credits but no more than a total of 64 semester credits.
For students who have decided on a major that articulates with the AS, but who are undecided on the university to
which they will transfer, courses satisfying the General Electives area should be selected from the list of Common
Courses, Arizona Transfer Pathway Guides, and/or University Transfer Guides in order for the courses to apply in the
major upon transfer.

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

Maricopa courses and external courses evaluated as Maricopa equivalents or departmental electives (for example,
HIS-ELC, MATELC), that are numbered 100 level or higher, and completed with a grade of “C” or higher, may be
applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however,
that students planning to transfer to a baccalaureate-granting institution meet elective requirements with courses that
are transferable and applicable to their intended university degree. For appropriate course selection, students should
consult with an advisor. For appropriate course selection, students should consult with an advisor.
For some majors, students must demonstrate 4th semester proficiency at the 202 course level to satisfy the Non-
English Language Requirements. Students should consult the Arizona Transfer Pathway Guides and/or the University
Transfer Guides to determine this requirement for the major at the university to which they intend to transfer. If
required, it is recommended that students choose Maricopa courses as electives to meet this requirement as part of
the Associate in Science degree.

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

Associate In Science Total Credits: 60-64

Associate in Business (ABus) - 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. MCCCD 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
Computer Information Systems should follow the ABus GR pathway. Computer Information Systems majors should
follow the Associate in Business Special Requirements pathway. Generally, the degree transfers as a block without loss of credit to Arizona’s public universities and other institutions with district-wide articulation agreements. In most cases, courses used to satisfy the MCCCD Associate in Business General Requirements will apply to university graduation requirements of the university major for which the ABus GR was designed.

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

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

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

- requires courses that transfer as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities according to the Arizona Course Equivalency Guide (CEG) within the Arizona Course Applicability System (AZCAS). The course evaluation and/or general education designation as listed in AZCAS is valid for the term in which the student is awarded credit on the transcript
- 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. View specific course information via the following website: https://asa.maricopa.edu/departments/center-for-curriculum-transfer-articulation
• Click on the AGEC link
• Select Maricopa Community College District or any of the Maricopa Community Colleges
• Click on the appropriate AGEC A, B, S, or AGEC Matrix

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

I. MCCCDD General Education Credits A. MCCCDD AGEC B

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

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

   1. Mathematics [MA] B (3 credits)
      MAT212, Brief Calculus, or a higher level mathematics course
      AND
   2. Computers/Statistics/Quantitative Applications [CS] (3 credits)
   d. Humanities, Arts and Design [HU] 6
      Students are encouraged to choose course work from more than one discipline for a total of six semester credits.
   e. Social 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. Note: Students transferring to ASU in Accountancy should take two of the following courses in meeting the general education requirements: a transfer course in Sociology; Psychology; COM230 or COM225. If students do not take these prior to transfer, they may need to take additional hours to meet ASU graduation requirements.

2. Awareness Areas
   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: 6-7
ACC111 & ACC230 & ACC240 OR
*ACC211 & ACC212
*MCCCD ACC111 and ACC112 together are equivalent to ACC211.
ECN211 [SB] Macroeconomic Principles 3
ECN212 [SB] Microeconomic Principles 3
GBS205 Legal, Ethical, Regulatory Issues in Business 3
GBS221 [CS] Business Statistics 3
Quantitative Methods 3
GBS220 Quantitative Methods in Business OR
*MAT217 Mathematical Analysis for Business OR
*MAT218 Mathematical Analysis for Business
*Students planning to attend ASU W.P. Carey will be required to take MAT217 or MAT218
Business Elective: 3 Select from the following options:
CIS114DE Excel Spreadsheet
CIS133DA Internet/Web Development Level I
CIS162AD C#: Level I
GBS151 Introduction to Business
GBS233 [L] Business Communication
**GBS220 Quantitative Methods in Business
GBS110 Human Relations in Business and Industry OR
MGT251 Human Relations in Business
IBS101 Introduction to International Business
MGT253 Owning and Operating a Small Business
REA179 Real Estate Principles I
REA180 Real Estate Principles II
MKT271 Principles of Marketing
PAD100 21st Century Public Policy and Service
SBU200 Society and Business
**If course used to satisfy Common Lower Division Program Requirements, it can not be used to satisfy Business Electives.

III. General Electives
Select courses to complete a minimum of 62 semester credits but no more than a total of 63 semester credits. General Electives semester credits may be necessary if courses selected for the degree satisfy multiple areas. Maricopa courses and external courses evaluated as Maricopa equivalents or departmental electives (for example, HIS- ELC, MATELC), that are numbered 100 level or higher, and completed with a grade of “C” or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet elective requirements with courses that are transferable and applicable to their intended university degree. For appropriate course selection, students should consult with an advisor.

ABUS GR DEGREE TOTAL CREDITS: 62-63
Associate in Business (ABus) - 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. MCCCD General Education which includes the Arizona General Education Curriculum for Business (AGEC B),
II. Common Lower Division Program Requirements,
III. General Electives.

54 Graduation Requirements
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. The Associate in Business General Requirements (ABus GR) is designed for all other business majors. Additional information on academic majors at the Arizona public universities can be accessed via the following web site: www.aztransfer.com/.
Generally, the degree transfers as a block without loss of credits to Arizona’s public universities and other institutions with district-wide articulation agreements. In most cases, courses used to satisfy the MCCCD Associate in Business Special Requirements may apply to university graduation requirements of the university major for which the ABus SR was designed.

Academic Policies that Govern the Associate in Business Special Requirements Degree:
• A minimum of 62-63 semester credits in courses numbered 100 and above to be completed with a grade of “C” or better; Credit units transferred from outside of the district need to be at a grade of “C” or better. A grade of “C” equals 2.0 on a 4.0 grading scale or equivalent. On an exception basis, P-grades may be allowed in the AGEC for credit transferred if documentation collected by the community college indicates that the P-grade issued was the only option for the student and the P-grade is a “C” or better. The P-grade exception does not apply to credits awarded by AGEC granting/receiving institutions;
• Credit received through prior learning assessment or credit by evaluation is transferable within the Maricopa Community Colleges but is not necessarily transferable to other colleges and universities. No more than 20 semester credit hours may be applied toward AGEC.
• uses the following policies to help students complete the required Core and Awareness Areas in AGEC B without exceeding the 35 semester credits
  » Courses can satisfy a Core Area and one or two Awareness Areas simultaneously.
  » A course cannot be used to satisfy more than one Core Area requirement.
• uses the following policy to help students complete the program requirements at a minimum of 62 semester credits but not more than 63 semester credits
• Courses can satisfy multiple areas within the degree simultaneously (AGEC B Core Area, AGEC B Awareness Area, and/or Common Lower Division Program Requirements)
• follows the general education policy below:
• General Education Designations (example: (FYC), [SB], [HU], etc.)
• Effective Fall 2000 the course evaluation and/or general education designation, as listed in the Arizona CEG (Course Equivalency Guide) within the Arizona Course Applicability System (AZ- CAS) is valid for the term in which the student is awarded credit on the transcript. A course evaluation and/or general education designation may be subject to change. Given that curriculum is dynamic at both MCCCD and the institutions to which MCCCD students transfer, students have the option to petition for course evaluations and/or general education designations.
• requires courses that transfer as an equivalent course, departmental elective credit (XXXXDEC), or general elective credit (Elective) at all Arizona public universities according to the Arizona Course Equivalency Guide (CEG). The course evaluation and/or general education designation as listed in AZCAS is valid for the term in which the student is awarded credit on the transcript
• follows the graduation policies within the general catalog
• includes both courses and their modular equivalents, either the course or the modular equivalents will satisfy the Associate in Business Special Requirements
• accepts one of the courses that is cross-referenced with other courses
• provides for exemption from Arizona university admission requirements for students who complete the ABus SR degree from a regionally accredited post-secondary institution with a minimum 2.0 on a 4.0=A scale for Arizona residents and a minimum 2.5 on a 4.0=A scale for non-residents
Degree Requirements
The 62-63 semester credits required for the Associate in Business Special Requirements follow. View specific course information via the following website: https://asa.maricopa.edu/departments/center-for-curriculum-transfer-articulation.

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

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

I. MCCCD General Education Credits
   A. MCCCD AGEC B

   1. Core Areas: 35
      a. First-Year Composition (FYC)  6
      b. Literacy and Critical Inquiry [L]  3
      c. Mathematical Studies [MA/CS]  6
         To complete the Mathematical Studies requirement select one course to satisfy Mathematics [MA] B and a second course from Computer/Statistics/Quantitative Applications [CS].
         (1) Mathematics [MA] B (3 credits)
            MAT212, Brief Calculus, or a higher level mathematics course
            AND
         (2) Computers/Statistics/Quantitative Applications) [CS] (3 credits)
      d. Humanities, Arts and Design [HU]  6
         Students are encouraged to choose course work from more than one discipline for a total of six semester credits.
      e. Social 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. Note: Students transferring to ASU in Accountancy should take two of the following courses in meeting the general education requirements: a transfer course in Sociology; Psychology; COM230 or COM225. If students do not take these prior to transfer, they may need to take additional hours to meet ASU graduation requirements.

   2. Awareness Areas
      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: 6-7
ACC111 & ACC230 & ACC240
OR
*ACC211 & ACC212
*MCCCD ACC111 and ACC112 together are equivalent to ACC211.

Programming I: 3
CIS162AD C#: Level I

Programming II: 3
CIS250 Management of Information Systems

GBS205 Legal, Ethical, and Regulatory Issues in Business
GBS221 [CS] Business Statistics
ECN211 [SB] Macroeconomic Principles
ECN212 [SB] Microeconomic Principles

Quantitative Methods: 3
GBS220 Quantitative Methods in Business OR
*MAT217 Mathematical Analysis for Business OR
*MAT218 Mathematical Analysis for Business

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.

Maricopa courses and external courses evaluated as Maricopa equivalents or departmental electives (for example, HIS-ELC, MATELC), that are numbered 100 level or higher, and completed with a grade of “C” or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet elective requirements with courses that are transferable and applicable to their intended university degree. For appropriate course selection, students should consult with an advisor.

ABUS SR TOTAL CREDITS: 62-63

Associate in General Studies (AGS)
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.

General Education Core
(16 credits - grade of “C” or better)

First-Year Composition (6 credits)
ENG English [101/107] & [102/108]

Oral Communication (3 credits)
COM Communication 100/100AA&100AB&100AC/110/110AA&110AB&110AC/225/230

Critical Reading (3 credits)
CRE Critical Reading 101/Equivalent as indicated by assessment

Mathematics (3 credits)

Computer Usage (1 credit)
Computer-related course or demonstration of comparable computer skills. Additional courses may be approved by individual colleges. Students should contact their advisor for college-specific courses satisfying the requirement.

ACC Accounting 115
Agribusiness 139
AJS Administration of Justice Studies 205
AMS Automated Manufacturing System 150
ARC Architecture 243/244/245
BPC Business-Personal Computers Any BPC Course(s) CFS Child/Family Studies 180
CIS Computer Information Systems Any CIS Course(s) (EXCEPT 162, 162AC, 169, 183AA, 217AM, 259, 262)
CSC Computer Science Any CSC Course(s) (EXCEPT 200, 200AA, 200AB, 210, 210AA, 210AB) CTR Court Reporting 101/102
DFT Drafting Technology any 105 module/251/any 254 module/256AA
ECH Early Childhood Education 238
EEE Electrical Engineering 120
ELE Electronic 131/181/241/243/245/281
ELT Electronic Technology 131/241/243
ENG English 100AE
FON Food & Nutrition 100
GBS General Business 221
GPH Physical Geography 220
HRM Hotel Restaurant Management 126
JAS Justice & Government Agencies Admin 225
JRN Journalism 133
LAS Paralegal Studies 229
MAT Mathematics 206
MET Manufacturing Technology 264
MTC Music Theory/Composition 180/191
NET Networking Technology 181
OAS Office Automation Systems 111AA/111AB/113/119/130DK
PSY Psychology 230
SBS Small Business 211
SWU Social Work 225
TVL Travel Agent Technology 203
VPT Video Production Technology 106

General Education Distribution Areas (28-29 credits)

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

AHU Arabic Humanities 245
AIS American Indian Studies 213
AJS Administration of Justice Studies 123
ARH Art Humanities Any ARH Course(s)
ASB Anthropology 211/214/220/222/223/253
CCS Chicana and Chicano Studies 101
CNS Construction 101
COM Communication 241
DAH Dance Humanities 100/201/250
EDU Education 291/292/294
ENG English 200/213/218
ENH English Humanities Any ENH Course(s) (EXCEPT 250) FRE French 265
HCR Health Care Related 210
HUM Humanities Any HUM course(s) (EXCEPT 120, 203, 207,225)
INT Interior Design 115/120/225
LAT Latin 201/202
MHL Music: History/Literature 140/143/145/146/153/155/241/242/295
PHI Philosophy Any PHI Course(s)
REL Religious Studies Any REL Course(s)
SLC Studies in Language & Culture 201
SPA Spanish 241/242/265/266
SPH Spanish Humanities 241, 245
SSH Sustainability/Social Sciences and Humanities 111
STO Storytelling 292/294
THE Theater 111/205/206/210/220
THF Theatre and Film 205/210
THP Theater/Performance/Production 241
WST Women’s Studies 209/284/285/290

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

AFR African American Studies 202
AIS American Indian Studies 101/140/141/160
AJS Administration of Justice Studies 101/119/200/225/258/259/270
ASB Anthropology 101/102/202/211/222/223/226/230/235/252
ASM Anthropology 104/275
CFS Child/Family Studies 112/157/159/176/205/235/259
COM Communication 100/100AA&100AB&100AC/110/110AA&110AB&110AC/163/230/250/263
ECH Early Childhood Education 176
ECN Economics Any ECN Course(s)
EDU Education 221/222
EED Early Education 200/205/222
EMT Emergency Medical Technology 258
ENG English 213
FOR Forensic Science 275
FSC Fire Science Technology 258
FUS Future Studies 101
GCU Cultural Geography 102/121/122/141/221/227
HES Health Science 100
HIS History any HIS Course(s) (EXCEPT 111, 170, 251, 252, 253, 254) HON Honors 201
IBS International Business 109
MCO Mass Communications 120
PAD Public Administration 200
POS Political Science Any POS course(s)
SBU Society and Business 200
SLC Studies in Language and Culture 201
SOC Sociology Any SOC course(s) (EXCEPT 143, 157, 215, 245, 253, 265, 270)
SSH Sustainability/Social Sciences and Humanities 111 SWU Social Work 102/171/258/292
WED Wellness Education 110
WST Women’s Studies 100/161
YAQ Yaqui Indian History and Culture 100

Natural Sciences (7-8 credits)
Two lecture courses and one corresponding laboratory course are to be selected. The lecture and corresponding laboratory course(s) may carry separate credit. For appropriate course selection students should consult with an advisor.

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

Literacy & Critical Inquiry (3 credits)

AIS American Indian Studies 213 BIO Biology 294
COM Communication /222/225/241 CRE Critical Reading 101
CUL Culinary Arts 223
ENG English 111/200/215/216/217/218
ENH English Humanities 254/255
GBS General Business 233
GPH Physical Geography 211, 267
HUM Humanities 225/250/251
IFS Information Studies 101
JRN Journalism 201/215/234
MCO Mass Communications 220
PHI Philosophy 103/106/218
POS Political Science 115
PSY Psychology 290AB/290AC
REL Religious Studies 203/205/207/210
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.

AGS DEGREE TOTAL CREDITS: 60

Associate in Applied Science (AAS)

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

Academic Policies that Govern the AAS degree:
- requires 60 or more credits numbered 100 or above and includes credits or the equivalent in the General
Education Core areas and credits in the Distribution areas. AAS degree requirements follow with the use of a diagonal character (/) between course numbers to signify options. An asterisk (*) following the course number defines requirements with an effective begin term of spring;

- requires grades as listed for specific areas such as the General Education Core where a minimum grade of “C” is required. See specific AAS occupational degree for specific program grade requirements;

- follows the graduation policies within the general catalog;

- includes both courses and their modular equivalents, either the course or the modular equivalents will satisfy the Associate in Applied Science requirements.

- requires at least 12 semester credit hours earned at the college awarding the AAS degree. The 12 hours in the AAS degree curricula may be in the Required Courses area and/or Restricted Electives courses. Courses from the General Education Core and Distribution area are excluded.

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

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

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

- requires completion of General Education courses as indicated in the General Education Requirements for the Associate in Applied Science degree from the Maricopa County Community College District, or completion of a curriculum as stated in the catalog;

- accepts one of the courses that is cross-referenced with other courses;

General Education Core
(15 credits - grade of “C” or better.)
Demonstrate college-level skills in the following areas:

First-Year Composition (6 credits)
ENG English [101/107] & [102/108/111]
Oral Communication (3 credits)
COM Communication 100/100AA&100AB& 100AC/110/ 110AA&110AB&110AC/225/230
Critical Reading (3 credits)
CRE Critical Reading 101/111/Equivalent as indicated by assessment
Mathematics (3 credits)
MAT Mathematics 103AA&103AB/112/120/121/ 122/ 122AA/122AB/122AC/126/140/141/142/150/151/ 151AA/

General Education Distribution Areas (9-10 credits)

Humanities, Arts and Design (2-3 credits)
Students are encouraged to choose courses from more than one discipline.

AHU Arabic Humanities 245
AIS American Indian Studies 213
AJS Administration of Justice Studies 123
ARH Art Humanities Any ARH Course(s)
ASB Anthropology 211/214/220/222/223/253
CCS Chicana and Chicano Studies 101
CNS Construction 101
COM Communication 241
DAH Dance Humanities 100/201/250
EDU Education 291/292/294
ENG English 200/213/218
ENH English Humanities Any ENH Course(s) (EXCEPT 250)
FRE French 265
HCR Health Care Related 210
HIS History 101/102/103/108/111/113/114/203/212/243/251/252/275
HUM Humanities Any HUM course(s) (EXCEPT 120, 203, 207, 225)
INT Interior Design 115/120/225
LAT Latin 201/202
MHL Music: History/Literature 140/143/145/146/153/155/241/242/295
PHI Philosophy Any PHI Course(s)
REL Religious Studies Any REL Course(s)
SLC Studies in Language and Culture 201
SPA Spanish 241/242/265/266
SPH Spanish Humanities 241, 245
SSH Sustainability/Social Sciences and Humanities 111
STO Storytelling 292/294
THE Theater 111/205/206/210/220
THF Theatre and Film 205/210
THP Theater/Performance/Production 241
WST Women's Studies 209/284/285/290

Social Behavioral Sciences (3 credits)
Students are encouraged to choose courses from more than one discipline.

AFR African American Studies 202/
AIS American Indian Studies 101/140/141/160
AJS Administration of Justice Studies 101/200/225/258/259/270
ASB Anthropology 100/102/202/211/222/223/226/230/235/252
ASM Anthropology 104/275
CFS Child/Family Studies 112/157/159/176/205/235/259
COM Communications 100/100AA &100AB&100AC/110/110AA&110AB&110AC/163/230/250/263
ECH Early Childhood Education 176
ECN Economics Any ECN course(s)
EDU Education 221/222
EED Early Education 200/205/222
EMT Emergency Medical Technology 258
ENG English 213
FOR Forensic Science 275
FSC Fire Science 258
FUS Future Studies 101
GCU Cultural Geography 102/121/122/141/221/227
HES Health Science 100
HIS History Any HIS course(s) (EXCEPT 111, 170, 251, 252, 253, 254)
IBS International Business 109
MCO Mass Communications 120
PAD Public Administration 200
POS Political Science Any POS course(s)
REC Recreation 120
SBU Society and Business 200
SLC Studies in Language and Culture 201
SOC Sociology Any SOC course(s) (EXCEPT 143, 157, 215, 245, 253, 265, 270)
SSH Sustainability/Social Sciences and Humanities 111
SWU Social Work 102/171/258/292
WED Wellness Education 110
WST Women's Studies 100/161
YAQ Yaqui Indian History and Culture 100

Natural Sciences (4 credits)
The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory
course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with
an advisor for appropriate course selection.

AGS Agricultural Science 164
ASB Anthropology 231
ASM Anthropology 104/265
AST Astronomy 101/102/111/112/113/114
ENV Environmental Sciences 101
FON Food and Nutrition 241 & 241LL
FOR Forensic Science 105/106
GLG Geology Any GLG course(s)
GPH Physical Geography 111/112 & 113/211/212&214/213&215
HON Honors 201
PHS Physical Science 110/120
PHY Physics 101/101AA/111/111AA/112/115/116/121/131
PSY Psychology 275/290AB/290AC

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

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

**Associate in Applied Science - Credits: 60-65 (3149)**

Description: The Associate in Applied Science (AAS) in Accounting program is one of several options for students seeking to gain skills and knowledge in the field of accounting. Possible entry-level jobs for this program include accounting clerk, accounts payable/receivable clerk, claims clerk, credit clerk, full-charge bookkeeper, accounting intern, or comparable positions. A Certificate of Completion (CCL) is also available.

Program Notes:
Students must earn a grade of C or better in all courses required within the program.
+ indicates course has prerequisites and/or co-requisites.
++ indicates any module/suffixed courses.
Consultation with an Academic Advisor is recommended for course selection.

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

Required Courses: Credits 29-32
ACC111 Accounting Principles I (3) AND
+ ACC230 Uses of Accounting Information I (3) AND
+ ACC240 Uses of Accounting Information II (3)
OR
ACC111 Accounting Principles I (3) AND
+ ACC112 Accounting Principles II (3) AND
+ ACC212 Managerial Accounting (3)
OR
ACC211 Financial Accounting (3) AND
+ ACC212 Managerial Accounting (3)

ACC105 Payroll, Sales and Property Taxes
+ ACC115 Computerized Accounting

ACC121 Income Tax Preparation (3) OR
+ ACC221 Tax Accounting (3)

CIS114DE Excel Spreadsheet
CIS105 Survey of Computer Information Systems
GBS151 Introduction to Business
GBS205 Legal, Ethical and Regulatory Issues in Business
+ GBS233 Business Communication

Restricted Electives: Credits: 9
ACC+++++ Any ACC Accounting course(s) except courses used to satisfy Required Courses area

Required Courses area

GBS110 Human Relations in Business and Industry (3) OR
MGT251 Human Relations in Business (3)

GBS131 Business Calculations
GBS207 Business Law (General Corporate)
+ GBS220 Quantitative Methods in Business

General Education Requirement Credits: 22-24

General Education Core: Credits: 12-14

First-Year Composition: Credits: 6
**Degrees and Certificates**

**Oral Communication:** Credits: 3
Any approved General Education course in the Oral Communication area.

**Critical Reading:** Credits: 0
Met by CRE101, College Critical Reading OR equivalent as indicated by assessment in Program Prerequisites area.

**Mathematics:** Credits: 3-5
+MAT120 Intermediate Algebra (5) OR
+MAT121 Intermediate Algebra (4) OR
+MAT122 Intermediate Algebra (3) OR
Satisfactory completion of a higher level mathematics course.

**General Education Distribution:** Credits: 10
- **Humanities and Fine Arts:** Credits: 3
Any approved General Education course in the Humanities and Fine Arts area.

- **Social and Behavioral Sciences:** Credits: 3
  - ECN211 Macroeconomic Principles (3) OR
  - ECN212 Microeconomic Principles (3) OR
  - SBU200 Society and Business (3)

- **Natural Sciences:** Credits: 4
  Any approved General Education course in the Natural Sciences area.

**Accounting Certificate of Completion - Credits: 23-26 (5665)**

Description: The Certificate of Completion (CCL) in Accounting program is designed for students seeking to gain skills and knowledge in the field of accounting. Possible entry-level jobs for this program include accounting clerk, accounts payable/receivable clerk, claims clerk, credit clerk, full-charge bookkeeper, accounting intern, or comparable positions. An Associate in Applied Science (AAS) is also available.

**Program Notes:**
- + indicates course has prerequisites and/or co requisites.
- Students must earn a grade of “C” or better in all courses required within the program.
- Consultation with an Academic Advisor is recommended for course selection.

**Program Prerequisites:** None

**Required Courses:** Credits 23-26

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<thead>
<tr>
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<tbody>
<tr>
<td>ACC111 Accounting Principles I (3) AND</td>
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<td>+ ACC230 Uses of Accounting Information I (3) AND</td>
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<tr>
<td>+ ACC240 Uses of Accounting Information II (3)</td>
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OR

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<th>Course</th>
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<td>ACC111 Accounting Principles I (3) AND</td>
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<td>+ ACC112 Accounting Principles II (3) AND</td>
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<tr>
<td>+ ACC212 Managerial Accounting (3)</td>
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OR

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<th>Course</th>
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<tbody>
<tr>
<td>ACC211 Financial Accounting (3) AND</td>
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<tr>
<td>+ ACC212 Managerial Accounting (3)</td>
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ACC105 Payroll, Sales and Property Taxes 3
+ ACC115 Computerized Accounting 2
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<th>Credits</th>
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<td>Excel Spreadsheet</td>
<td>3</td>
</tr>
<tr>
<td>CIS105</td>
<td>Survey of Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GBS151</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>GBS205</td>
<td>Legal, Ethical and Regulatory Issues in Business</td>
<td>3</td>
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Description: The Certificate of Completion (CCL) in Adobe Creative Suite in Business: Master Suite Applications program helps develop proficiency with all the software included in the Adobe Creative Suite. This software can provide useful tools for those interested in dynamic and interactive web site design, print media, and video production. Two additional specialized CCLs are available that allow students to specialize in whichever of the smaller professional packages available from Adobe that is most appropriate for their needs.

Program Notes:
+ indicates course has prerequisite

Students must earn a grade of “C” or better in all courses required within the program.
Instruction on the use of other supporting programs included with the Adobe Creative Suite will be incorporated into the required courses where these applications are topically relevant.

Program Prerequisites: Credits: 0-6
Program prerequisites may be waived by Program Director depending on student’s background and experience.

- BPC 110 Computer Usage and Applications (3) OR
- CIS 105 Survey of Computer Information Systems (3) 3

- CIS 133DA Internet/Web Development Level I 3

Required Courses: Credits: 30
- CIS120DF Computer Graphics: Adobe Photoshop 3
- CIS120DB Computer Graphics: Adobe Illustrator 3
- CIS120DC Flash: Digital Animation 3
- CIS233DC Internet Web Development: Dreamweaver 3
- CIS120DG Fireworks: Web 3
- CIS138DA Desktop Design and Publishing Using Adobe InDesign 3
- CIS120DP Adobe Acrobat Pro: Portable Document Format (PDF) Files 3
- CIS120DA Introduction to Digital Video Production: Adobe Premiere 3
- CIS120DL Digital Video Compositing: After Effects 3
- CIS120DO Adobe Audition: Audio Editing 3

Restricted Electives: Credits: 3
- CIS220DC Flash: Advanced Animation and ActionScripts 3
- CIS220DF Advanced PhotoShop 3

**Adobe Creative Suite in Business: Print and Web Applications Specialist: Certificate of Completion - Credits: 24-30 (5780)**

Description: The Certificate of Completion (CCL) in Adobe Creative Suite in Business: Print and Web Applications Specialist program is designed to develop proficiency with one of the professional Creative Suite software packages offered by Adobe. Developing skill with the software in this package provides useful tools for those interested in designing print and web content. In addition to a second CCL focused on the Production Applications in the Creative Suite family, there is also Adobe Creative Suite in Business: Master Suite Applications Specialist CCL available for students looking for a curriculum that covers the complete software collection.

Program Notes:
+ indicates course has prerequisite
Students must earn a grade of “C” or better in all courses required within the program. Instruction on the use of other supporting programs included with the Adobe Creative Suite will be incorporated into the required courses where these applications are topically relevant.

Program Prerequisites: 0-6
Program prerequisites may be waived by Program Director depending on student’s background and experience.

BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3
CIS133DA Internet/Web Development Level I 3

Required Courses: Credits: 21
CIS120DF Adobe Photoshop Level I: Digital Imaging 3
CIS120DB Computer Graphics: Adobe Illustrator 3
CIS120DC Flash: Digital Animation 3
+CIS233DC Internet Web Development: Dreamweaver 3
CIS120DG Fireworks: Web Graphics 3
+CIS138DA Desktop Design and Publishing Using Adobe InDesign 3
CIS120DP Adobe Acrobat Pro: Portable Document Format (PDF) Files 3

Restricted Electives: Credits: 3
+CIS220DC Flash: Advanced Animation and ActionScripts 3
+CIS220DF Advanced PhotoShop 3

Free Electives: None

Adobe Creative Suite in Business: Production Applications Specialist
Certificate of Completion - Credits: 18 (5782)
Description: The Certificate of Completion (CCL) in Adobe Creative Suite in Business: Production Applications Specialist program is designed to develop proficiency with one of the professional Creative Suite software packages offered by Adobe. Developing skill with the software in this package provides useful tools for those interested in effective incorporation of video, audio and special effects in web pages and other applications. In addition to a second CCL focused on the Design and Web package in the Creative Suite family, there is also Adobe Creative Suite in Business: Master Suite Applications CCL available for students looking for a curriculum that covers the complete software collection.

Program Notes:
+ indicates course has prerequisites and/or co requisites.
Students must earn a grade of “C” or better in all required courses within the program.
Instruction on the use of other supporting programs included with the Adobe Creative suite will be incorporated into the required courses where these applications are topically relevant.

Program Prerequisites: None

Required Courses: Credits: 18
CIS120DF Adobe Photoshop Level I: Digital Imaging 3
CIS120DB Computer Graphics: Adobe Illustrator 3
CIS120DC Flash: Digital Animation 3
CIS120DA Introduction to Digital Video Editing: Adobe Premiere 3
CIS120DL Digital Video Compositing: After Effects 3
CIS120DO Adobe Audition: Audio Editing 3

Adobe Foundations
Certificate of Completion - Credits: 9 (5807)
Description: The Certificate of Completion (CCL) in Adobe Foundations program helps develop proficiency with three of Adobe’s foundational graphics programs: Photoshop, Illustrator, and Flash. The courses in this CCL are the common subset of those required for the other Adobe Creative Suite CCLs. Thus all the courses in the Adobe Foundations CCL may be applied towards the requirements of any of these more comprehensive certificates.

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

**Required Courses: Credits:**
- CIS120DF Adobe Photoshop Level I: Digital Imaging 3
- CIS120DB Computer Graphics: Adobe Illustrator 3
- CIS120DC Flash: Digital Animation 3

**Advanced Behavioral Health Sciences**

**Associate in Applied Science - Credits: 68-74 (3067)**

Description: The Associate in Applied Science (AAS) in Advanced Behavioral Health Sciences/Recovery program is designed to prepare students for careers as behavioral health technicians, case managers, parent aides, family advocates, respite care workers, and paraprofessional counselors. The program includes courses designed to provide students with the skills necessary to deliver basic, specialized, and comprehensive behavioral health services. The core focus of the program is practical training and service learning experiences.

Program Notes:
+ indicates course has prerequisites and/or co requisites.

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

Student must select one of the following tracks in the Restricted Electives area:
- Track 1: Violence & Abuse Prevention Track
- Track 2: Grief & Bereavement Recovery Track
- Track 3: General Integrated Track
- Track 4: Employment Support Track

**Program Prerequisites:** None

**Required Courses:**
- BHS101 Intro to Ethical Counseling Issues 3
- BHS105 Introduction to Human Relations 2
- BHS115 Group Dynamics 3
- BHS/SWU130 Addictions and Substance Use Disorders 3
- BHS151 Communication Skills in Counseling I 3
- BHS156 Supervised Practice I 3
- BHS204 Counseling in Multicultural Setting 3
- BHS205 Therapeutic Intervention Models 3
- BHS215 Group Process 3
- BHS260 Case Report Writing 1
- BHS263 Applied Case Report Writing 1
- BHS290 Child and Family Advocacy 3
- PSY101 Introduction to Psychology 3
- PSY240 Developmental Psychology (3) OR
- PSY266 Abnormal Psychology (3) 3

**Restricted Electives:**
Note: Student must select one of the following four (4) Tracks.

**Track 1: Violence and Abuse Prevention Credits:**
- AJS101 Introduction to Criminal Justice 3
- BHS266 Violence and Abuse Counseling 3
- BHS268 Grief and Bereavement Issues 2

**Track 2: Grief & Bereavement Recovery Track Credits:**
- BHS168 Hospice Volunteer Training 2
- BHS268 Grief and Bereavement Issues 2
- BHS269 Grief Counseling Techniques 3
- BHS281 Introduction to Art Therapy 3

**Track 3: General Integrated Track Credits:**
Select a total of 10 credits from the following courses:
+ BHS264 Understanding Trauma 3
BHS265 Violence and Abuse Matters 2
+ BHS266 Violence and Abuse Counseling 3
+ BHS267 Introduction to Play Therapy 3
BHS268 Grief and Bereavement Issues 2
+ BHS269 Grief Counseling Techniques 3
+ BHS270 Introduction to Dance and Movement Therapy 3
+ BHS272 Managing Difficult Children 3
+ BHS281 Introduction to Art Therapy 3
+ BHS285 Facilitating Art Therapy Groups 3
STO289AC Using Storytelling in Healing Settings 1

Track 4: Employment Support Track Credits: 9
ESS101 Introduction to Employment Support 3
+ ESS103 Employment Support Systems Practices 3
ESS110 Americans with Disabilities Act Overview 2
CPD125 Employee Development: Problem Solving/Decision Making 1

General Education Requirement: Credits: 22-27
General Education Core: Credits: 12-17
First Year Composition: Credits: 6
+ 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: Credits: 3
COM100 Introduction to Human Communication (3) OR
COM100AA Introduction to Human Communication Part I (1) AND
COM100AB Introduction to Human Communication Part II (1) AND
COM100AC Introduction to Human Communication Part III (1) OR
COM110 Interpersonal Communication (3) OR
COM230 Small Group Communication (3) 3

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

Mathematics: Credits: 3-5
Any approved general education course from the Mathematics area. 3-5

General Education Distribution: Credits: 10

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

Social and Behavioral Sciences: Credits: 3
Any approved general education course in the Social and Behavioral Sciences area not included as a Required Course. 3

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

Advanced Behavioral Health Sciences
Certificate of Completion - Credits: 46-47 (5521)

Description: The Certificate of Completion (CCL) in Advanced Behavioral Health Sciences program is designed to prepare students for careers as behavioral health technicians, case managers, parent aides, family advocates, respite care workers, and paraprofessional counselors. The program includes courses designed to provide students with the skills necessary to deliver basic, specialized, and comprehensive behavioral health services. The core focus of the program is practical training and service learning experiences.

Program Notes:
+ indicates course has prerequisites and/or co-requisites.
Students must earn a grade of “C” or better in all courses within the program.

Program Prerequisites: None

Required Courses: Credits: 37
BHS101 Introduction to Ethical Counseling Issues 3
+ BHS105 Introduction to Human Relations 2
BHS115 Group Dynamics 3
BHS/SWU130 Addictions and Substance Use Disorders 3
+ BHS151 Communication Skills in Counseling I 3
+ BHS156 Supervised Practice I 3
+ BHS204 Counseling in Multicultural Setting 3
+ BHS205 Therapeutic Intervention Models 3
+ BHS215 Group Process 3
+ BHS260 Case Report Writing 1
+ BHS263 Applied Case Report Writing 1
+ BHS290 Child and Family Advocacy 3
PSY101 Introduction to Psychology 3
+ PSY240 Developmental Psychology (3) OR
+ PSY266 Abnormal Psychology (3) 3

Restricted Electives: Credits: 9-10
Note: Students must select one of the following four Tracks.

Track 1: Violence and Abuse Prevention Credits: 10
AJS101 Introduction to Criminal Justice 3
BHS265 Violence and Abuse Matters 2
+ BHS266 Violence and Abuse Counseling 3
BHS268 Grief and Bereavement Issues 2

Track 2: Grief & Bereavement Recovery Track Credits: 10
BHS168 Hospice Volunteer Training 2
+ BHS268 Grief and Bereavement Issues 2
+ BHS269 Grief Counseling Techniques 3
+ BHS281 Introduction to Art Therapy 3

Track 3: General Integrated Track Credits: 10
Select a total of 10 credits from the following courses:
+ BHS264 Understanding Trauma 3
BHS265 Violence and Abuse Matters 2
+ BHS266 Violence and Abuse Counseling 3
+ BHS267 Introduction to Play Therapy 3
BHS268 Grief and Bereavement Issues 2
+ BHS269 Grief Counseling Techniques 3
+ BHS270 Introduction to Dance and Movement Therapy 3
+ BHS272 Managing Difficult Children 3
+ BHS281 Introduction to Art Therapy 3
+ BHS285 Facilitating Art Therapy Groups 3
STO289AC Using Storytelling in Healing Settings 1
Track 4: Employment Support Track Credits: 9
CPD125 Employee Development: Problem Solving/Decision Making 1
ESS101 Introduction to Employment Support 3
+ ESS103 Employment Support Systems Practices 3
ESS110 Americans with Disabilities Act Overview 2

Android/iOS Programming
Certificate of Completion - Credits 12 (5834) NEW

Description: The Certificate of Completion (CCL) in Information Technology: Android/iOS Programming provides students with entry-level programming skills and knowledge in developing software for both Android and iOS devices. It includes programming in both Java and Objective-C or Swift languages.

Program Notes: Students must earn a grade of C or better in all courses within the program. Students should consult with a Department Advisor in arranging their schedules.
+ indicates course has prerequisites and/or corequisites.

Program Prerequisites: Credits: 0-3
CIS105 Survey of Computer Information Systems (3) OR
Permission of division chair or department coordinator 0-3

Required Courses: Credits: 12
+ CIS163AA Java Programming: Level I 3
+ CIS165 Introduction to IOS Application Development 3
+ CIS165DA Android Mobile Device Programming 3
+ CIS263AA Java Programming: Level II 3

Restricted Electives: Credits: 0

Basic Behavioral Health
Certificate of Completion - Credits: 19 (5522)

Description: The Certificate of Completion (CCL) in Basic Behavioral Health is designed to prepare students for careers as behavioral health technicians, case managers, parent aides, family advocates, respite care workers, and paraprofessional counselors. The program includes courses designed to provide students with the skills necessary to deliver basic behavioral health services. The core focus of the program is practical training and service learning experiences.

Program Notes:
+ indicates course has prerequisites and/or co-requisites
Students must earn a grade of “C” or better in all courses within the program.

Program Prerequisites: None

Required Courses: Credits: 19
BHS101 Approach to Paraprofessional Counseling 3
BHS105 Introduction to Human Relations 2
+ BHS151 Communication Skills in Counseling I 3
+ BHS204 Counseling in a Multicultural Setting 3
+ BHS205 Therapeutic Intervention Models 3
+ BHS260 Case Report Writing 1
+ BHS290 Child and Family Advocacy 3
CWE198AA Career Work Experience 1

Business Management
Associate in Applied Science - Credits: 66-67 (3054)

Description: The Associate in Applied Science (AAS) in Business Management program is to provide students with a basic inventory of skills and competencies that will meet their needs when they become practitioners in the field. Recognizing that many persons already involved in business and industry desire to improve their skills, the program also seeks to offer alternative for the increase of knowledge and the improvement of skills by current practitioners in the field.

Program Notes:
+ indicates course has prerequisites and/or co-requisites. Students must earn a grade of “C” or better for each course listed in the Required Courses area.

Program Prerequisites: None

Required Courses Credits: 30-31
ACC107 Bookkeeping Theory and Practice (4) OR
ACC111 Accounting Principles I (3) 3-4
CIS105 Survey of Computer Information Systems 3
GBS131 Business Calculations 3
GBS151 Introduction to Business 3
GBS205 Legal, Ethical, and Regulatory Issues in Business 3
+ GBS233 Business Communication 3
MGT229 Management and Leadership I 3
+ MGT230 Management and Leadership II 3
MGT251 Human Relations in Business 3
MKT271 Principles of Marketing (3) OR
MKT276 Personnel/Human Resources Management (3) 3

Restricted Electives: Credits: 12
Note: Students should select from the following courses in consultation with a Department Advisor:
MGT135 Global Procurement and Supply Management 3
MGT253 Owning & Operating a Small Business 3
MKT275 Office Management & Procedures 3
MGT277 Labor Relations 3
MKT263 Advertising Principles 3
MKT267 Principles of Salesmanship 3

General Studies Requirements: Credits 24-25

General Education Core Credits: 15
First-Year Composition: Credits: 6
+ ENG101 First-Year Composition (3) AND
+ ENG102 First-Year Composition (3) 6

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

Critical Reading: Credits: 3
CRE101 College Critical Reading (3) OR
CRE111 Critical Reading for Business & Industry (3) OR equivalent by assessment. 3

Mathematics: Credits: 3
MAT112 Mathematical Concepts/Applications (3) OR
Equivalent by assessment OR satisfactory completion of a higher level math course 3

General Education Distribution Credits: 9-10
Humanities and Fine Arts: Credits: 2-3
Any approved general education course in the Humanities and Fine Arts area 2-3
Social and Behavioral Sciences: Credits: 3
Any approved general education course in the Social and Behavioral Sciences area

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

**Child Development Associate (CDA) Preparation Certificate of Completion – Credits: 16 (5710)**

Description: The Certificate of Completion (CCL) in Child Development Associate Preparation is designed to provide documented training in preparation for application to become a Child Development Associate. This program is intended for individuals interested in early childhood education who intend to pursue the national credential of CDA from the Council for Professional Recognition. Students completing the described CCL coursework must apply independently to the Council for final evaluation and validation.

Program Prerequisites: None

Required Courses: Credits 16
- CFS/ECH176 Child Development (3) OR
- CFS235 Developing Child: Theory into Practice, Prenatal - Age 8(3) 3

- EED200 Foundations of Early Childhood Education 3
- EED212 Guidance, Management and the Environment 3
- EED215 Early Learning: Health, Safety, Nutrition and Fitness 3

- EED220 Child, Family, Community and Culture (3) OR

**Cisco Networking Associate in Applied Science - Credits: 63-71 (3095)**

Description: The Associate in Applied Science (AAS) in Information Technology: Cisco Networking program focuses on the skills needed to prepare for industry-recognized certifications with an emphasis on certifications at the professional-level. Knowledge and skills are developed to install, configure, maintain, and troubleshoot Cisco routers and components, advanced routing protocols, Local Area Networks (LANs), and Wide Area Networks (WANs); troubleshoot problems with various common hardware and software configurations; perform administrative tasks in a network. Courses in the program also focus on the skills needed to prepare for various Cisco certifications including the Cisco Certified Networking Associate (CCNA) and Cisco Certified Network Professional Certifications (CCNP). A Certificate of Completion (CCL) is also available.

Program Notes:
- Students must earn a grade of “C” or better in all courses within the program.
- Students should select from the following courses in consultation with a Department Advisor.
  - + indicates course has prerequisites and/or co-requisites.
  - ++ indicates any module/suffixed courses.

Program Prerequisites: Credits 0-3
- CIS105 Survey of Computer Information Systems OR permission of Program Director 3

Required Courses: Credits 41
- CNT140AA Introduction to Networks 4
  + CNT150AA Cisco - Routing and Switching Essentials 4
  + CNT160AA Scaling Networks 4
  + CNT170AA Cisco - Connecting Networks 4

- Select any 200-level CNT courses to complete 16 credits:
  + CNT2++++ Any 200-level CNT Cisco Network Technology courses 16

- CIS126DL Linux Operating System 3
- MST150++ Microsoft Windows (any suffixed course) 3
  + BPC170 Computer Maintenance: A+ Exam Prep Level I 3
General Education Requirements: Credits: 22-27

General Education CORE: Credits: 12-17

First-Year Composition: Credits: 6
Any approved General Education course in the First-Year Composition Area 6

Oral Communication: Credits: 3
Any approved General Education course in the Oral Communication Area 3

Critical Reading: Credits: 0-3
Any approved General Education course in the Critical Reading Area OR Equivalent as indicated by assessment 0-3

Mathematics: Credits: 3-5
MAT120 Intermediate Algebra (5) OR
MAT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra (3) OR
MAT151 Intermediate Algebra (4) 3-5

General Education Distribution Credits: 10

Humanities & Fine Arts: Credits: 3
Any approved General Education course in the Humanities and Fine Arts Area 3

Social and Behavioral Sciences: Credits: 3
Any approved General Education course in the Social and Behavioral Sciences Area 3

Natural Sciences: Credits: 4
Any approved General Education course in the Natural Sciences Area 4

Cisco Networking
Certificate of Completion - Credits: 41 (5526)
Description: The Certificate of Completion (CCL) in Information Technology: Cisco Networking program focuses on the skills needed to prepare for industry-recognized certifications with an emphasis on certifications at the professional-level. Knowledge and skills are developed to install, configure, maintain, and troubleshoot Cisco routers and components, advanced routing protocols, Local Area Networks (LANs), and Wide Area Networks (WANs); troubleshoot problems with various common hardware and software configurations; perform administrative tasks in a network. Courses in the program also focus on the skills needed to prepare for various Cisco certifications including the Cisco Certified Networking Associate (CCNA) and Cisco Certified Network Professional Certifications (CCNP). Associate in Applied Science (AAS) is also available.

Program Notes:
Students must earn a grade of “C” or better in all courses within the program.
Students should select from the following courses in consultation with a Department Advisor.
+ indicates course has prerequisites and/or co-requisites.
++ indicates any module/suffixed courses.

Program Prerequisites: Credits: 3
CIS105 Survey of Computer Information Systems (3) OR
Permission of Program Director 3

Required Courses Credits: 41
CNT140AA Introduction to Networks 4
+ CNT150AA Cisco - Routing and Switching Essentials 4
+ CNT160AA Scaling Networks 4
+ CNT170AA Cisco - Connecting Networks 4

Select any 200-level CNT courses to complete 16 credits:
### Computer and Information Technologies

**Associate in Applied Science - Credits: 60-64 (3167)**

Description: The Associate in Applied Science (AAS) degree in Computer and Information Technologies is designed to provide training for positions in the Information Technology field as computer and information technology support specialists. This degree is intended to provide the student with flexibility in designing a program of study that is relevant to the rapidly changing needs of business and industry while allowing the student to match their own talents, interests, and goals. This degree is also intended for students who desire to transfer to university Bachelor of Applied Science degree programs which accept Associate of Applied Science degree block-transfer.

**Program Notes:**

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

*+* indicates course has prerequisites and/or co requisites.

*++* indicates any module

**Program Prerequisites:** None

<table>
<thead>
<tr>
<th>Required Courses: Credits:</th>
<th>9-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS105 Survey of Computer Info. Systems</td>
<td>3</td>
</tr>
<tr>
<td>+CIS190 Introduction to Local Area Networks (3) OR CNT140AA Introduction to Networks (4) OR MST150++ Microsoft Windows (Any MST150++module) (3)</td>
<td>3-4</td>
</tr>
<tr>
<td>GBS151 Introduction to Business</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restricted Electives: Credits:</th>
<th>26-27</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students should select from the Restricted Electives courses in consultation with a Department Advisor. Students must complete a minimum of 12 credit hours of 200-level Restricted Elective coursework in the BPC, CIS, CNT, and/or MST prefixes.</td>
<td></td>
</tr>
</tbody>
</table>

Courses completed 5 or more years prior to graduation do not meet the restricted elective requirement and will not be included in the hours required for degree completion.

| ART100 Introduction to Computer Graphic Art | 1 |
| ART111 Drawing I | 3 |
| ART112 Two-Dimensional Design (1) OR +ART122 Drawing and Composition II(3) | 1-3 |
| ART142 Introduction to Digital Photography | 3 |
| BPC110 Computer Usage and Applications | 3 |
| BPC121AB Microsoft Command Line Operations | 1 |
| +BPC170 Computer Maintenance I: A+ Essentials Prep | 3 |
| +BPC270 Computer Maintenance II: A+ Technician Prep | 3 |
| CIS114DE Excel Spreadsheet | 3 |
| CIS117AM Database Management: Microsoft Access- Level I (1) AND +CIS117BM Database Management: Microsoft Access- Level II (1) AND +CIS117CM Database Management: Microsoft Access- Level III (1) OR CIS117DM Microsoft Access: Database Management (3) | 1-3 |
| CIS118DB Desktop Presentation: PowerPoint | 3 |
| +CIS119DO Introduction to Oracle: SQL | 3 |
| CIS120AF Computer Graphics: Adobe Photoshop: Level I | 1 |
| +CIS120BF Computer Graphics: Adobe Photoshop: Level II | 1 |
| +CIS120CF Computer Graphics: Adobe Photoshop: Level III | 1 |
| CIS120AK Introduction to Digital Video Editing | 1 |
| CIS120D+ Computer Graphics (any CIS120 D modules) | 3 |
| CIS121AB Microsoft Command Line Operations | 1 |
| CIS121AE Windows Operating System: Level I | 1 |
| CIS122AB OS/400 Operating System | 1 |
CIS126BL  Linux Operating System II 1
CIS126CL  Linux Operating System III 1
CIS133AA  Internet/Web Development Level I-A 1
CIS133BA  Internet/Web Development Level I-B 1
CIS133CA  Internet/Web Development Level I-C 1
CIS133DA  Internet/Web Development Level I 3
CIS214DE  Advanced Excel Spreadsheet: Level II 3
CIS217AM  Advanced Microsoft Access: Database Management 3
CIS220DF  Advanced Photoshop 3
CIS126AL  Linux Operating System I (1) OR
CIS126DL  Linux Operating System (3) 1-3
CIS15+ Programming (any CIS15+) 3
CIS15+++ Programming (any CIS15+++ module) 3
CIS16+ Programming (any CIS16+) 3
CIS16+++ Programming (any CIS16+++ module) 3
CIS220DC  Flash: Advanced Animation and ActionScript 3
CIS225 Business Systems Analysis and Design (3) OR
CIS225AB  Object-Oriented Analysis and Design (3) 3
CIS233DA  Internet/Web Development Level II 3
CIS235  e-Commerce 3
CIS238 Advanced UNIX System Administration (3) OR
CIS238DL  Linux System Administration (3) 3
CIS243D+ Internet/Web Development (any CIS243D+ module) 3
CIS259 Visual Basic Programming II 3
CIS262AD  C# Level II 3
CIS263AA  Java Programming: Level II 3
CNT+++++ Cisco (any CNT+++ module) 3-4
MST140  Microsoft Networking Essentials 3
MST150++ Microsoft Windows (any MST150++ module) 3
MST152++ Microsoft Windows (any MST152++ module) 4
MST157++ Microsoft Windows (any MST157+ module) 4
MST2++  Microsoft (any MST2++) 3-4

General Education: Credits: 25-27
General Education Core: Credits: 15-17
First-Year Composition: Credits: 6
Any approved General Education course in the First-Year Composition Area 6
Oral Communication: Credits: 3
Any approved General Education course in the Oral Communication Area 3
Critical Reading: Credits: 3
Any approved General Education course in the Critical Reading Area 3
Mathematics: Credits: 3-5
Any approved General Education course in the Mathematics Area

General Education Distribution Credits: 10
Humanities & Fine Art: Credits: 3
Any approved General Education course in the Humanities and Fine Arts Area 3
Social and Behavioral Sciences: Credits: 3
Any approved General Education course in the Social and Behavioral Sciences Area 3
Natural Sciences: Credits: 4
Any approved General Education course in the Natural Sciences Area 4

**Computer Applications Specialist**

**Associate in Applied Science - Credits: 61-65 (3098)**

Computer Applications Specialist: Certificate of Completion Credits: 36-38 (5201) Description: The Certificate of Completion (CCL) in Information Technology: Computer Applications Specialist is designed to enhance the information technology skills gained through the Certificate in Information Technology, focusing on advanced Microsoft software skills - including application implementation, development, and operating systems - necessary for entry-level software technician support positions. An Associate in Applied Science (AAS) is also available.

Program Notes:
+ indicates course has prerequisites and/or co requisites.
Students must earn a grade of “C” or better in all courses within the program.

Program Prerequisites: None

<table>
<thead>
<tr>
<th>Required Courses: Credits:</th>
<th>21-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS114DE Excel Spreadsheet</td>
<td>3</td>
</tr>
<tr>
<td>CIS117DM Microsoft Access: Database Management</td>
<td>3</td>
</tr>
<tr>
<td>CIS118DB Desktop Presentation: PowerPoint</td>
<td>3</td>
</tr>
<tr>
<td>CIS105 Survey of Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>+CIS190 Introduction to Local Area Networks (3) OR</td>
<td></td>
</tr>
<tr>
<td>CNT140AA Introduction to Networks (4)</td>
<td>3-4</td>
</tr>
<tr>
<td>GBS151 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>MST150++ Microsoft Windows (any MST150++module)</td>
<td>3</td>
</tr>
</tbody>
</table>

Restricted Electives: Credits: 15-16

<table>
<thead>
<tr>
<th>Restricted Electives: Credits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS120AK Introduction to Digital Video Editing</td>
</tr>
<tr>
<td>CIS120DC Adobe Flash Level I: Digital Animation</td>
</tr>
<tr>
<td>CIS120DF Adobe Photoshop Level I: Digital Imaging</td>
</tr>
<tr>
<td>CIS120DH Computer Graphics: Microsoft Visio</td>
</tr>
<tr>
<td>CIS121AB Microsoft Command Line Operations</td>
</tr>
<tr>
<td>CIS121AE Windows Operating System: Level I</td>
</tr>
<tr>
<td>CIS133DA Internet/Web Development Level I</td>
</tr>
<tr>
<td>+CIS138DA Desktop Design and Publishing Using Adobe InDesign</td>
</tr>
<tr>
<td>+BPC170 Computer Maintenance I: A+ Essentials Prep</td>
</tr>
<tr>
<td>CIS126DL Linux Operating System</td>
</tr>
<tr>
<td>+CIS159 Visual Basic Programming I (3) OR</td>
</tr>
<tr>
<td>+CIS162AD C#: Level I (3) OR</td>
</tr>
<tr>
<td>+CIS163AA Java Programming: Level I (3)</td>
</tr>
<tr>
<td>+CIS169 Introduction to Visual Basic for Applications</td>
</tr>
<tr>
<td>+CIS214DE Advanced Excel Spreadsheet: Level II</td>
</tr>
<tr>
<td>+CIS217AM Advanced Microsoft Access: Database Management</td>
</tr>
<tr>
<td>+CIS220DF Adobe Photoshop Level II: Advanced Digital Imaging</td>
</tr>
<tr>
<td>+CIS238DL Linux System Administration</td>
</tr>
<tr>
<td>+MST157DA Active Directory Windows Server Configuration</td>
</tr>
</tbody>
</table>

**Creative Writing**

**Academic Certificate - Credits: 24 (6224)**

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

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

Program Prerequisites: None

<table>
<thead>
<tr>
<th>Required Courses: Credits:</th>
<th>21</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG210 may be substituted for CRW150 with permission of Program Director.</td>
<td></td>
</tr>
<tr>
<td>CRW150 Introduction to Creative Writing (3) OR CRW155 Bilingual Creative Writing (3)</td>
<td>3</td>
</tr>
<tr>
<td>CRW200 must be repeated for a total of two (2) credits.</td>
<td></td>
</tr>
<tr>
<td>+ CRW200 Readings for Writers (1)</td>
<td>2</td>
</tr>
<tr>
<td>+ CRW201 Portfolio</td>
<td>1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Series I: Credits:</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students must complete two (2) of the following courses for a total of six (6) credits.</td>
<td></td>
</tr>
<tr>
<td>CRW120 Introduction to Writing Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>CRW160 Introduction to Writing Poetry</td>
<td>3</td>
</tr>
<tr>
<td>CRW170 Introduction to Writing Fiction</td>
<td>3</td>
</tr>
<tr>
<td>CRW172 Introduction to Comic Book Writing</td>
<td>3</td>
</tr>
<tr>
<td>CRW180 Introduction to Writing Nonfiction</td>
<td>3</td>
</tr>
<tr>
<td>CRW190 Introduction to Screenwriting</td>
<td>3</td>
</tr>
<tr>
<td>THE118 Playwriting</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series II: Credits:</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students must complete three (3) of the following courses for a total of nine (9) credits.</td>
<td></td>
</tr>
<tr>
<td>+ CRW202 The Writer as Witness</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW203 Dialogue</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW204 Journaling</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW220 Intermediate Writing Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>CRW251 Topics in Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW260 Intermediate Poetry Writing</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW261 Topics in Writing: Poetry</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW270 Intermediate Fiction Writing</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW271 Topics in Writing: Fiction</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW272 Planning and Structuring the Novel</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW273 Writing the Novel</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW274 Revising the Novel</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW275 Writing the Mystery Story</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW281 Topics in Writing: Non-Fiction</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW290 Intermediate Screenwriting</td>
<td>3</td>
</tr>
<tr>
<td>+ CRW291 Topics in Writing: Plays</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restricted Electives: Credits:</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ CRW++++++ Any CRW Creative Writing prefixed course not listed under Required Courses area.</td>
<td>1-3</td>
</tr>
<tr>
<td>ENG235 Magazine Article Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENG/THE260 Film Analysis</td>
<td>3</td>
</tr>
<tr>
<td>+ ENH++++++ Any ENH English Humanities prefixed course</td>
<td>3</td>
</tr>
</tbody>
</table>
HUM/THF210  Contemporary Cinema  3

Early Learning and Development
Associate in Applied Science - Credits: 63-68 (3124)

Description:
The Associate in Applied Science (AAS) in Early Learning and Development program is designed to prepare individuals to enter
the workforce as Early Childhood Professionals and to assist individuals employed in the field to upgrade and expand their skills.
The program emphasizes the roles of early care and education professionals, families and the wider society as they together
meet the contemporary needs of young children. Course work includes the principles of developmental science, professionalism
in early childhood work, philosophies and methods of early learning, and the impact of standards on practice. To apply planning,
management and evaluation skills, students will observe, participate, and intern in state licensed early childhood programs.

Program Notes:
Students must earn a grade of “C” or better in all courses within the program.
+ indicates course has prerequisites and/or co-requisites.
++ indicates any module/suffixed courses.

Program Prerequisites: None

Required Courses: Credits  32
ECH128 Early Learning: Play and the Arts  3
EED200 Foundations of Early Childhood Education  3
EED212 Guidance, Management and the Environment  3
EED215 Early Learning: Health, Safety, Nutrition and Fitness  3
EED220 Child, Family, Community and Culture  3
EED222 Introduction to the Exceptional Young Child: Birth to Age Eight  3
EED245 Early Learning: Language Acquisition and Literacy Development  3
+ EED255 Portfolio Development and Writing for the Profession  3
+ EED260 Early Childhood Infant/Toddler Internship  1
+ EED261 Early Childhood Preschool Internship  1
+ EED278 Early Learning: Curriculum and Instruction - Birth/Preschool  3
+ EED280 Standards, Observation and Assessment of Typical/Atypical Behaviors of Young
  Children Birth to Age Eight  3

Restricted Electives: Credits  9
Block One: Infant and Toddler Development:
ITD200 The Physical Child: Birth to Age Three  3
ITD210 Early Attachments, Relationships and Families: Birth to Age Three  3
ITD220 Cognition and Communication: Birth to Age Three  3

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

Block Three: Early Childhood Business Management:
CFS206 Child and Family Organizations: Management and Administration  3
CFS207 Organization and Community Leadership in Child and Family Organizations  3
CFS208 Child and Family Organizations: Fiscal Management and Grant Writing  3

Block Four: Any CFS, ECH, EED, ITD or FCS prefixed courses not listed in the Required
  Courses area  9
CFS+++++ Any CFS Child/Family Studies course(s)  1-9
ECH+++++ Any ECH Early Childhood Education course(s) except courses used to satisfy
  Required Courses area.  1-9
EED+++++ Any EED Early Education course(s) except courses used to satisfy
  Required Courses area.  1-9
ITD+++++ Any ITD Infant/Toddler Development course(s)  1-9
FCS+++++ Any FCS Family and Consumer Science course(s)  1-9
Degrees and Certificates

General Education: Credits: 22-27
General Education Core: Credits: 12-17

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

Oral Communication: Credits: 3
Any approved General Education course in the Oral Communication Area 3

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

Mathematics: Credits: 3-5
Any approved general education course in the Mathematics area 3-5

General Education Distribution: Credits 10

Humanities and Fine Arts: Credits: 3
Any approved General Education course in the Humanities and Fine Arts area 2-3

Social and Behavioral Sciences: Credits: 3
CFS/ECH176 Child Development (3) OR
EED205 The Developing Child: Prenatal to Age Eight (3) OR
CFS235 Developing Child: Theory into Practice, Prenatal - Age 8 (3) 3

Natural Sciences: Credits: 4
Any approved General Education course in the Natural Sciences area 4

Editor’s Note: At the time of publication the two CCL’s above that are associated with this AAS 3124 were pending DOE approval.

Engineering Technology
Associate of Arts - Credits: 63-93 (3228)
Description: The Associate in Applied Science (AAS) in Engineering Technology program is designed to provide skills required of entry-level engineering technicians. Students are provided with the fundamentals of physics, engineering, computer hardware, programming, engineering design fundamentals, and computer software program usage. A solid foundation in mathematics, science, communication skills, humanities, and social sciences provides a well-rounded curriculum.

Program Notes:
+ indicates course has a prerequisite and/or co requisites.
Students must earn a grade of “C” or better for all courses required within the program.

Program Prerequisites: Credits: 0-17
The credit hour range is subject to change depending on the student’s educational experiences. PHY111 AND PHY112 are also strongly recommended for those who have not completed one year of high school physics with a grade of C or better.

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

+MAT187 Precalculus (5)
OR
+MAT150 College Algebra/Functions (5) OR
+MAT151 College Algebra/Functions (4) OR
MAT152 College Algebra/Functions (3)
AND
MAT182 Plane Trigonometry (3)
OR
Equivalent by assessment 0-8

CHM130 Fundamental Chemistry (3) AND
CHM130LL Fundamental Chemistry Lab (1)
OR
CHM130AA Fundamental Chemistry with Lab (4)
OR
one year of high school chemistry with a grade of C or better taken within the last five years 0-4

Required Courses: Credits: 32-38
+ECE102 Engineering Analysis Tools and Techniques (2) OR
+ECE102AA Engineering Analysis Tools and Techniques (2) 2
+ECE103 Engineering Problem Solving and Design (2) OR
+ECE103AB Engineering Problem Solving and Design (2) 2
+EEE202 Circuits and Devices 5
+MAT220 Calculus with Analytic Geometry I (5) OR
+MAT221 Calculus with Analytic Geometry I (4) 4-5
+MAT230 Calculus with Analytic Geometry II (5) OR
+MAT231 Calculus with Analytic Geometry II (4) 4-5
+MAT240 Calculus with Analytic Geometry III (5) OR
+MAT241 Calculus with Analytic Geometry III (4) 4-5
+MAT276 Modern Differential Equations (4) OR
+MAT277 Modern Differential Equations (3) 3-4
+PHY115 University Physics I (5) OR
+PHY121 University Physics I: Mechanics (4) 4-5
+PHY116 University Physics II (5) OR
+PHY131 University Physics II: Electricity and Magnetism (4) 4-5

Restricted Electives: Credits: 16-20
Students should select 16-20 credits from the following list of electives based on their area of Engineering and interests. Consultation with Program Director is recommended particularly for students considering transfer to the university so that they optimize their transferable course work.
+BIO181 General Biology (Majors) I 4
+BIO182 General Biology (Majors) II 4
+CHM150 General Chemistry I (4) OR
+CHM151 General Chemistry I (3)
AND
+CHM151LL General Chemistry I Laboratory (1)
OR
+CHM150AA General Chemistry I (5)
OR
+CHM151AA General Chemistry I (4) 4-5
+CHM152 General Chemistry II (3) AND
General Education: Credits: 15-18

General Education Core: Credits: 9-12

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

Oral Communication: Credits: 3
Any approved General Education course in the Oral Communication Area
COM100 or COM110 or COM230 recommended.

Critical Reading: Credits: 0-3
+ CRE101 College Critical Reading (3) OR
+ CRE111 Critical Reading for Business and Industry (3) OR
Equivalent as indicated by assessment 0-3
Entrepreneurial Studies Level I
Certificate of Completion - Credits: 10-11 (5819)
Description: The Certificate of Completion (CCL) in Entrepreneurial Studies Level I program is designed to provide students with an introduction to the entrepreneurial process. Courses include a history of entrepreneurship, current research into its impacts on society, types of business start-up opportunities, and creating a preliminary business plan, as well as securing a healthy financial future.

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

Program Prerequisites: None

Required Courses Credits:
- EPS150 Introduction to Entrepreneurship 3
- EPS160 New Venture Creation 2
- EPS180 Technology Business Planning (3) OR
  EPS195 Business Start-Up and Planning (2) 2-3
- GBS/HEC132 Personal and Family Financial Security 3

Entrepreneurial Studies Level II
Certificate of Completion - Credits: 18-19 (5820)
Description: The Certificate of Completion (CCL) in Entrepreneurial Studies Level II program is designed to provide students with the necessary skills, knowledge, and abilities to start and run their own business. Courses include new venture legal issues, financial projections, and alternatives, in addition to market research to determine business feasibility. Also covers management skills and entrepreneurial thinking for owning and operating a small business.

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

Program Prerequisites: Certificate of Completion in Entrepreneurial Studies Level I (5819) 10-11

Required Courses Credits:
- EPS161 New Venture Law and Finance 3
- EPS165 New Venture Feasibility Analysis 2
- MGT253 Owning and Operating a Small Business 3

Editor’s Note: At the time of this publication, CCL 5820 was pending DOE approval.

Family Child Care Management Program
Certificate of Completion - Credits - 16 (5714) (NEW)
Description:
The Certificate of Completion (CCL) in Family and Child Care Management program provides individuals with a foundation in early childhood care theories, practices and administration. Topics include curriculum development, health and safety guidelines, business procedures, and cognitive and physical development of the young child.

Program Notes:
Students must earn a grade of “C” or better in all courses within the program.
+ indicates course has prerequisites and/or co-requisites.

Program Prerequisites: None

Required Courses: Credits
CFS163 Family Child Care: Introduction to Business Management 3
CFS164 Family Child Care: Curriculum and Environment 3
CFS207 Organization and Community Leadership in Child and Family Organizations 3
EED205 The Developing Child: Prenatal to Age Eight 3
EED215 Early Learning: Health, Safety, Nutrition and Fitness 3
+ EED260 Early Childhood Infant/Toddler Internship 1

Editor’s Note: At the time of publication CCL 5714 was pending DOE approval.

General Business

Associate Applied Science - Credits 61-66 (3148)

Description: The Associate in Applied Science (AAS) in General Business program is designed to meet the needs of students who wish a broad overview of business and desire not to enroll in a specialized curriculum in business. The program is designed to acquaint students with major subject areas of business, to improve the student’s business vocabulary, and to provide students with an understanding of influencing factors in business decision making and activities. In addition, this program may aid a student in recognizing a specific business field to be pursued in future studies. Although many courses will transfer to a four-year institution, some courses do not. This curriculum is not designed to meet the needs of students who wish to transfer to a four-year institution. A Certificate of Completion (CCL) is also available.

Program Prerequisites: None

Program Notes:
+ indicates course has prerequisites and/or co requisites Students must earn a grade of “C” or better in all courses within the program

Required Courses: Credit
ACC111 Accounting Principles I 3
CIS105 Survey of Computer Information Systems 3
GBS110 Human Relations in Business and Industry (3) OR
MGT175 Business Organization and Management (3) OR
MGT251 Human Relations in Business (3) 3
GBS151 Introduction to Business 3
GBS205 Legal, Ethical and Regulatory Issues in Business 3
+ GBS233 Business Communication 3
MKT271 Principles of Marketing 3

Restricted Electives: Credits:
ACC+++++ Any ACC Accounting course(s) 19
GBS+++++ Any GBS General Business course(s)
MGT+++++ Any MGT Management course(s)
MKT+++++ Any MKT Marketing course(s)
EPS+++++ Any EPS Entrepreneurial Studies course(s)
IBS+++++ Any IBS International Business course(s)
REA+++++ Any REA Real Estate course(s)
SBS+++++ Any SBS Small Business Management course(s)
CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3
Degrees and Certificates

CIS133DA Internet/Web Development Level I 3

General Education Requirement: Credits 22-27

General Education Core: Credits: 12-17

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

Oral Communication: Credits: 3
Any approved General Education course in the Oral Communication area. 3

Critical Reading: Credits: 0-3
+CRE101 College Critical Reading (3) OR equivalent by assessment 0-3

Mathematics: Credits: 3-5
+MAT120 Intermediate Algebra (5) OR
+MAT121 Intermediate Algebra (4) OR
+MAT122 Intermediate Algebra (3)

General Education Distribution: Credits: 10
Humans and Fine Arts: Credits: 3
Any approved General Education course in the Humanities and Fine Arts area. 3

Social and Behavioral Sciences: Credits: 3
ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3) OR
SBU200 Society and Business (3)

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

General Business
Certificate of Completion - Credits: 21 (5683)
Description: The Certificate of Completion (CCL) in General Business is designed to provide business training for various entry-level positions in business. The courses include an introduction to business concepts, accounting and computer principles, and legal issues related to business. An Associate in Applied Science (AAS) is also available.

Program Notes:
+ indicates course has prerequisites and/or co-requisites
Students must earn a grade of “C” or better in all courses required within the program.

Program Prerequisites: None

Required Courses: Credits: 12
ACC111 Accounting Principles I 3
CIS105 Survey of Computer Information Systems 3
GBS151 Introduction to Business 3
GBS205 Legal, Ethical and Regulatory Issues in Business 3

Restricted Electives: Credits: 9
Students should select nine (9) credits from the following courses.
Any 100/200 level prefixed courses may be selected except courses used to satisfy the Required Courses area.
ACC+++++ Any ACC Accounting course(s)
GBS+++++ Any GBS General Business course(s)
MGT+++++ Any MGT Management course(s)
MKT+++++ Any MKT Marketing course(s)
IBS+++++ Any IBS International Business course(s)
REA+++++ Any REA Real Estate course(s)
SBS+++++ Any SBS Small Business Management course(s)
CIS114DE Excel Spreadsheet 3
CIS117DM Microsoft Access: Database Management 3
CIS133DA Internet/Web Development Level I 3
EPS+++++ Any EPS Entrepreneurial Studies course(s) 1-3
CFS157 Marriage and Family Life (3)

+EED260 Early Childhood Infant/Toddler Internship (1) OR
+EED261 Early Childhood Preschool Internship (1) 1

Infant and Toddler Development
Certificate of Completion - Credits: 16 (5715) (NEW)
Description:
The Certificate of Completion (CCL) in Infant and Toddler Development program prepares individuals with foundational knowledge on the development of the young child. Included topics are child health, physical milestones, and cognitive development. Also covered are adult/child relationship building, and communication and language acquisition.

Program Notes:
Students must earn a grade of “C” or better in all courses within the program.
+ indicates course has prerequisites and/or co-requisites.
++ indicates any module/suffixed courses

Program Prerequisites: None

Required Courses: Credits
EED205 The Developing Child: Prenatal to Age Eight 3
EED215 Early Learning: Health, Safety, Nutrition and Fitness 3
+EED260 Early Childhood Infant/Toddler Internship 1
+ ITD200 The Physical Child: Birth to Age Three 3
+ ITD210 Early Attachments, Relationships and Families: Birth to Age Three 3
+ ITD220 Cognition and Communication: Birth to Age Three 3

Editor’s Note: At the time of publication CCL 5715 was pending DOE approval.

Information Technology Support
Certificate of Completion - Credits 21-22 (5163)
Description: The Certificate of Completion (CCL) in Information Technology Support program is designed to provide training in the fundamental competencies of information technology in business or industry and prepares the student for employment in entry-level information technology support positions.

Program Notes:
+ indicates course has a prerequisite and/or co requisites.
++ indicates any module/suffixed course.
Grade of “C” or better is required for all courses within the program.

Program Prerequisites: None

Required Courses: Credits
CIS105 Survey of Computer Information Systems 3
+CIS190Introduction to Local Area Networks (3) OR
CNT140AA Introduction to Networks (4) OR
MST150++ Microsoft Windows (Any MST150++module) (3) 3-4
GBS151 Introduction to Business 3
Restricted Electives: Credits: 11-12
CIS114D+ Spreadsheet (any CIS114 D module) 3
CIS117D+ Database Management (any CIS117 D module) 3
CIS120D+ Computer Graphics (any CIS120 D module) 3
CIS121AB Microsoft Command Line Operations 1
CIS121AE Windows Operating System: Level I 1
+ BPC170 Computer Maintenance I: A+ Essentials Prep 3
CIS126AL Linux Operating System I (1) OR
CIS126DL Linux Operating System (3) 1-3
CIS133DA Internet/Web Development Level I 3

+ CIS15+ Programming (any CIS15+) (3) OR
CIS15+++ Programming (any CIS15+++ module) (3) OR
+ CIS16+ Programming (any CIS16+) (3) OR
CIS16+++ Programming (any CIS16+++ module) (3) 3
CNT150AA Cisco – Routing and Switching Essentials 4
+ ITS110 Information Security Fundamentals 4
+ MST157DA Active Directory Windows Server Configuration 4

Instructional Assistance
Certificate of Completion - Credits: 27 (5119) NEW
Description: The Certificate of Completion (CCL) in Instructional Assistance is designed to prepare students to assist the classroom teacher in grades K through 12. Program requirements include coursework in foundations of education and language as well as practical application coursework, including a practicum within a classroom setting.

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

Program Credits: 27
Program Prerequisites: None

Required Course Credits: 18
CFS/ECH176 Child Development 3
EDU220 Introduction to Serving English Language Learners (ELL) 3
EDU221 Introduction to Education 3
EDU222 Introduction to the Exceptional Learner 3
EDU230 Cultural Diversity in Education 3
EDU/ENH291 Children’s Literature 3

Restricted Electives: Credits: 9
Restricted Electives (BPC110 or CIS105), COM225, and (ENG101 or ENG107) courses are recommended if completing coursework for the Associate in Arts Elementary Education (AAEE) degree.

BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

+COM225 Public Speaking 3
EDU101A+ Tutor Training and Practicum (any suffixed course) 1-3
EDU236 Classroom Relationships 3
+EDU282A+ Service-Learning Experience in Education (any suffixed course) 1-3
EDU/HUM/STO292 The Art of Storytelling 3
+ECH/EDU298A+ Special Projects (any suffixed course) 3

+ENG101 First-Year Composition (3) OR
+ENG107 First-Year Composition for ESL (3)  
Any foreign language course  

Linux Professional  
Certificate of Completion Credits: 12 (5204)  
Description: The Certificate of Completion (CCL) in Linux Professional program is designed to help to prepare students for a variety of industry-recognized Linux certification exams as well as provide practical hands-on skills for the work place. The program includes a core of Linux classes including Linux operating system basics, System Administration, Network Administration and Network Security. These classes will help develop a student’s knowledge and skill level in preparation for employment or to improve current professional skills. Objectives for a variety of industry certifications are encompassed within course and program objectives.

Program Notes:  
+ indicates course has prerequisites and/or co-requisites.  
++ indicates any modules/suffixed courses  
Students must earn a grade of “C” or better for all courses within the program.

Program Prerequisites: None

Required Courses: Credits:  
CIS126DL Linux Operating System 3  
+ CIS238DL Linux System Administration 3  

Restricted Electives: Credits:  
+ BPC170 Computer Maintenance: A+ Exam Prep Level I 3  
+ BPC270 Computer Maintenance: A+ Exam Prep Level II 3  
CIS105 Survey of Computer Information Systems 3  
+ CIS197 VMware ESXi Server Enterprise 4  
CIS121AH Microsoft PowerShell/Command Line Operations 3  
+ CIS226AL Internet/Intranet Server Administration-Linux 3  
+ CIS239DL Linux Shell Scripting 3  
+ CIS240DL Linux Network Administration 3  
+ CIS241DL Apache Web Server Administration (Linux/Unix) 3  
+ CIS270 Essentials of Network and Information Security 3  
+ CIS271DL Linux Security 3  

+ CIS190 Introduction to Local Area Networks (3) OR  
CNT140AA Introduction to Networks (4) OR  
MST140 Microsoft Networking Essentials (3) 3-4  
+ CNT150AA Cisco – Routing and Switching Essentials 4  
MST150++ Microsoft Windows (any suffixed course) 3  
CIS280 Current Topics in Computing 3  
+ CIS290++ Computer Information Systems Internship (any suffixed course) 1-3  

Management  
Certificate of Completion - Credits: 18 (5729)  
Description: The Certificate of Completion (CCL) in Management program is designed to provide skills for management careers. Students completing this program are better equipped to apply competencies needed for successful performance in management occupations such as manufacturing, wholesaling, retailing, and service industries. An Associate in Applied Science (AAS) is also available.

Program Notes:  
+ indicates course has prerequisites and/or co-requisites.  
Students must earn a grade of C or better for all courses required within the program.

Program Prerequisites: None
Required Courses Credits: 18
ACC111 Accounting Principles I 3
BPC110 Computer Usage and Applications (3) O
CIS105 Survey of Computer Information Systems (3) 3
GBS151 Introduction to Business 3
GBS205 Legal, Ethical, and Regulatory Issues in Business 3
MGT229 Management and Leadership I 3
MGT251 Human Relations in Business 3

Marketing
Certificate of Completion - Credits: 18 (5094)
Description: The Certificate of Completion (CCL) in Marketing program meets students' needs by providing skills necessary for marketing careers. The program is designed to develop competencies essential for success in marketing. By completing this program students will be better equipped to apply competencies needed for successful performance in a variety of marketing/management occupations including wholesaling, retailing, professional sales, and entrepreneurship.

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

Program Prerequisites: None

Required Courses: Credits: 15
BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3
GBS151 Introduction to Business 3
MKT263 Advertising Principles 3
MKT267 Principles of Salesmanship 3
MKT271 Principles of Marketing 3

Restricted Electives: Credits: 3
Students should select from the following courses in consultation with Department Advisor.
MGT251 Human Relations in Business 3
MKT101 Introduction to Public Relations 3
MKT110 Marketing and Social Networking 3
MKT268 Merchandising 3

Microsoft Programming
Certificate of Completion Credits 12 (5833) NEW
Description: The Certificate of Completion (CCL) in Information Technology: Microsoft Programming would provide students with entry-level programming skills and knowledge in developing software for Windows devices, both desktop and mobile devices. It includes programming in both VB.NET and C#.

Program Notes: Students must earn a grade of “C” or better in all courses within the program. Students should select from the following courses in consultation with a Department Advisor.
+ indicates course has prerequisites and/or corequisites.

Program Prerequisites: Credits: 0-3
CIS105 Survey of Computer Information Systems (3) OR
Permission of division chair or department coordinator 0-3

Required Courses: Credits: 12
+ CIS159 Visual Basic Programming I 3
+ CIS162AD C#: Level I 3
+ CIS165DB C#/VB.NET: Windows 8 App Development 3
Mobile Apps Programming

Associate in Applied Science - Credits: 62-64 (3139)
Description: The Associate in Applied Science (AAS) in Mobile Apps Programming is designed to provide information and training on the programming aspect of technology. Individuals will be provided with the opportunity to develop skills necessary to work in the programming field including mobile applications programming. The program also includes a Certificate of Completion (CCL) in Programming, a Certificate of Completion (CCL) in Programming and System Analysis, and a Certificate of Completion (CCL) in Mobile Apps Programming.

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

Program Prerequisites: None

Required Courses: Credits: 37-45
Certificate of Completion in Programming (5047) (21-26) OR
Certificate of Completion in Programming and System Analysis (5048) 24
AND
Certificate of Completion in Mobile Apps Programming (5793) 37-45

General Education Requirements: Credits: 19-27
General Education Core: Credits: 9-17
First-Year Composition: Credits: 6
+ ENG101 First-Year Composition (3) OR
+ ENG107 First-Year Composition for ESL (3) AND
+ ENG102 First-Year Composition (3) OR
+ ENG108 First-Year Composition for ESL (3) 6

Oral Communication: Credits: 3
Any approved General Education course in the Oral Communication area.

Critical Reading: Credits: 0-3
+ CRE101 College Critical Reading (3) OR
+ CRE111 Critical Reading for Business and Industry (3) OR
Equivalent as indicated by assessment. 0-3

Mathematics: Credits: 0-5
Mathematics may be met by MAT120, or MAT121, or MAT122 if taken in Required Courses area.
+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra (4) OR
+ MAT122 Intermediate Algebra (3) OR
Satisfactory completion of a higher level mathematics course. 0-5

General Education Distribution: Credits: 10
Humanities and Fine Arts Credits: 3
Any approved general education course from the Humanities and Fine Arts area. 3

Social and Behavioral Sciences Credit: 3
Any approved general education course from the Social and Behavioral Sciences area. 3
Natural Sciences: Credit: 4
Any approved general education course from the Natural Sciences area. 4

Mobile Apps Programming
Certificate of Completion in Credits: 16-45 (5793)
Description: The Certificate of Completion (CCL) in Mobile Apps Programming is designed to prepare individuals with the skills necessary to develop and distribute applications for mobile devices. Courses will include Mac Operating System, Adobe Photoshop, and Hypertext Markup Language (HTML)/Cascading Styles Sheets (CSS) for the development of iPhone, Android, and Windows 8 App development.

Program Notes: The Computer Information System (CIS) courses required by this program are not applicable if taken more than eight (8) years prior to the completion of the certificate program. Consult with an Academic Advisor for complete information.

Students must earn a grade of “C” or better for all courses within the program.
+ indicates course has prerequisites and/or co-requisites.

Program Prerequisites: Credits: 0-29
+ CIS150 Programming Fundamentals (3) AND
Certificate of Completion in Programming (5047) (21-26) OR
Certificate of Completion in Programming and System Analysis (5048) (24) OR
Permission of Department or Division Chair. 0-29

Required Courses: Credits 16
CIS120DF Adobe Photoshop Level I: Digital Imaging 3
CIS121AI Mac Operating System 1
CIS132 HTML/CSS 3
+ CIS165 Introduction to IOS Application Development 3
+ CIS165DA Android Mobile Device Programming 3
+ CIS165DB C#/VB.NET: Windows 8 Mobile App Development 3

Music Business:
Associate in Applied Science - Credits: 60-63 (3017)
Description: The Associate in Applied Science (AAS) in Music Business program is an innovative curriculum designed to prepare students for today’s music industry. The certificate and degree with a music business emphasis are designed for both the performing musician and the business student with limited performing experience. This program combines a flexible curriculum with an emphasis in business and marketing, along with music industry related courses and experiences.

Program Notes:
Students must earn a grade of “C” or better for all courses required within the program.
+ indicates course has prerequisite and/or co-requisites.
++ indicates any module/suffixed courses.

Program Prerequisites: None

Required Courses: Credits 14
MUC109 Music Business: Merchandising and the Law 3
MUC110 Music Business: Recording and Mass Media 3
MUC295AA Self Promotion for Music 1
+MUC209 Music Industry Entrepreneurship (3) OR
MGT253 Owning and Operating a Small Business (3) 3
+MUC290AA Music Business Internship 1
MHL+++++ Any MHL Music: History/Literature course 3

Restricted Electives: Credits: 12
Students must select twelve (12) credits from the approved list of Restricted Elective courses below to specialize in Music Production, Disc Jockey Techniques, Songwriting, Performance, Marketing, Business, or Communications.
Students must consult with the Music Business Program Director, Music Department Chair or designee to select the Restricted
Elective courses recommended for each specialization.

Free Electives: Credits: 12
Students should choose twelve (12) credits from the following list of Free Elective courses except courses used to satisfy the Restricted Electives area.

- ACC111 Accounting Principles I 3
- BPC128 Introduction to Desktop Publishing 1
- CIS131AA Doing Business on the Internet 1
- GBS151 Introduction to Business 3
- GBS233 Business Communication 3
- MKT110 Marketing and Social Networking 3
- MKT271 Principles of Marketing 3

MTC101 Introduction to Music Theory (3)
or higher level MTC Music: Theory/Composition course (3) 3

- MTC113 Songwriting Techniques 1
- +MUC111 Digital Audio Workstation I (DAWI) 3
- MUC135 Introduction to Disc Jockey Techniques 3
- MUC145 Recording Studio Business Operations 2
- +MUC180 Computer Literacy for the Music Business 3

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

+MUC210 Advanced Industry Topics: Concert Promotion and Training 3
+MUC211 Advanced Industry Topics: Artist Management and Talent Development 3
MUC215 Music Industry Seminar: Innovation in Music Technology 1
+MUC240 Creative Music Production 4
+MUC241 Business Principles of Music Production 3
MUC274AB Music Industry Study Tour 2
+MUC295AB Portfolio for Music 1
+MUC298AA Special Projects 1
+MUC298AB Special Projects 2
+MUC298AC Special Projects 3
SBS230 Financial and Tax Management for Small Business 2

General Education Requirements: Credits 22-25

General Education Core: Credits: 12-15

First-Year Composition: Credits: 6
Any approved general education courses from the First-Year Composition area

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

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

Mathematics: Credits: 3
+ Any approved general education course from the Mathematics Area

General Education Distribution: Credits: 10
Humanities & Fine Arts: Credits: 3
Any approved general education course from the Humanities and Fine Arts Area

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

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

Music Business
Certificate of Completion - Credits: 26 (5258)
Description: The Certificate of Completion (CCL) in Music Business program is an innovative curriculum designed to prepare students for today’s music industry. The certificate and degree with a music business emphasis are designed for both the performing musician and the business student with limited performing experience. This program combines a flexible curriculum with an emphasis in business and marketing, along with music industry related courses and experiences.

Program Notes:
+ indicates course has prerequisite and/or co-requisites.
++ indicates any module/suffixed courses.
Students must earn a grade of “C” or better for all courses required within the program.

Program Prerequisites: None

Required Courses: Credits 11
MUC109 Music Business: Merchandising and the Law 3
MUC110 Music Business: Recording and Mass Media 3
MUC295AA Self Promotion for Music 1
+MUC209 Music Industry Entrepreneurship (3) OR
MGT253 Owning and Operating a Small Business (3) 3
+MUC290AA Music Business Internship 1

Restricted Electives: Credits: 15
Students must select fifteen (15) credits from the approved list of Restricted Elective courses to specialize in Music Production, Disc Jockey Techniques, Songwriting, Performance, Marketing, Business or Communications. Students must consult with the Music Business Program Director, Music Department Chair or designee to select the Restricted Elective courses recommended for each specialization.

Networking Administration: Cisco
Certificate of Completion - Credits: 14-18 (5969)
Description: The Certificate of Completion (CCL) in Networking Administration: Cisco program is a Cisco Systems recognized Regional or Local Academy that prepares students for industry-recognized certification. The curriculum is taught by Cisco Systems Certified Professionals. The Certificate of Completion (CCL) 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.

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

Program Prerequisites: None
Network Administration: Cisco Network Professional
Certificate of Completion - Credits: 16 (5328)
Description: The Certificate of Completion (CCL) in Network Administration: Cisco Network Professional program equip students with marketable skills for learning the specific tasks and industry-recognized standards associated with network professional who can install, configure, and troubleshoot local and wide area networks for enterprise organizations with networks comprised of 100 to 500 or more nodes. The coursework emphasizes security, converged networks, quality of service (QoS), virtual private networks (VPN), broadband technologies, and integrating technologies in the network infrastructure. The program also prepares students to complete the required certification tests in Cisco Certified Network Professional (CCNP) certification, which indicates advanced or journeyman knowledge of networks.

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

Program Prerequisites: Credits: 0-4
CNT170AA Cisco – Connecting Networks (4) OR Cisco Certified Network Associate (CCNA) Industry Certification

Required Courses: Credits: 16
+CNT200 CCNP ROUTE: Implementing Cisco IP Routing
+CNT202 Cisco Secure Firewall Appliance Configuration (4) OR
+CNT205 Cisco Certified Network Associate Security (4) OR
+CNT206 Cisco Certified Network Associate Wireless (4) OR
+CNT208 Cisco Certified Network Associate Voice (4)
+CNT220 CCNP SWITCH: Implementing Cisco IP Switching
+CNT231 CCNP TSHOOT: Maintaining and Troubleshooting Cisco IP Networks

Network Security
Associate in Applied Science - Credits: 63-69 (3097)
Description: The Associate of Applied Science (AAS) in Information Technology: Network Security program is designed to focus on the necessary skills required to secure a network including the security of various operating systems and network devices. Emphasis is placed on developing the theoretical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet the training needs of government and industry employees. The program
covers a variety of information security disciplines which include both vendor-neutral and vendor-specific information technology (IT) security training. The Information Technology: Network Security program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry and government. A Certificate of Completion (CCL) is also available.

Program Notes:
+ indicates course has prerequisites and/or co requisites.
++ indicates any module
Students must earn a grade of “C” or better in all courses within the program. Students should select from the following courses in consultation with a Department Advisor.

Program Prerequisites: Credits: 3
CIS105, Survey of Computer Information Systems OR
permission of Program Director

Required Courses: Credits: 38
CIS126DL Linux Operating System 3
CNT140AA Introduction to Networks 4
+CNT150AA Cisco – Routing and Switching Essentials 4
+CNT160AA Scaling Networks 4
+CNT170AA Cisco – Connecting Networks 4
+CNT205 Cisco Certified Network Associate Security 4
+CNT202 Cisco Secure Firewall Appliance Configuration 4
+ITS110 Information Security Fundamentals 4
MST150++ Microsoft Windows (any MST150++ module) 3
+MST157DA Active Directory Windows Server Configuration 4

Restricted Electives: Credits: 3-4
+CIS238DL Linux System Administration 3
+MST15+ Microsoft Windows (any MST15++ module) 3-4
+MST2++ Microsoft (any MST2++ module) 3-4
BPC170 Computer Maintenance I: A+ Essentials Prep 3
+BPC270 Computer Maintenance II: A+ Technician Prep 3
+CNT2++ Cisco (Any CNT2++ Module) 4

General Education Requirements: Credits: 22-27

General Education CORE: Credits: 12-17
First-Year Composition: Credits: 6
Any approved General Education course in the First-Year Composition Area 6

Oral Communication: Credits: 3
Any approved General Education course in the Oral Communication Area 3

Critical Reading: Credits: 0-3
Any approved General Education course in the Critical Reading Area OR Equivalent as indicated by assessment. 3

Mathematics: Credits: 3-5
MAT120 Intermediate Algebra (5) OR MAT121 Intermediate Algebra (4) OR MAT122 Intermediate Algebra (3) OR MAT151 Intermediate Algebra (4) 3-5

General Education Distribution Credits: 10
Humans & Fine Arts: Credits: 3
Any approved General Education course in the Humanities and Fine Arts Area 3

Social and Behavioral Sciences: Credits: 3
Any approved General Education course in the Social and Behavioral Sciences Area 3

Natural Sciences: Credits: 4
Any approved General Education course in the Natural Sciences Area 4

**Network Security Certificate of Completion - Credits: 41-42 (5530)**

Description: The Certificate of Completion (CCL) in Information Technology: Network Security program is designed to focus on the necessary skills required to secure a network including the security of various operating systems and network devices. Emphasis is placed on developing the theoretical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet the training needs of government and industry employees. The program covers a variety of information security disciplines which include both vendor-neutral and vendor-specific information technology (IT) security training. The Information Technology: Network Security program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry and government. An Associate in Applied Science (AAS) is also available.

Program Notes:
+ indicates course has prerequisites and/or co requisites.
++ indicates any module
Students must earn a grade of “C” or better in all courses within the program. Students should select from the following courses in consultation with a department advisor.

Program Prerequisites: Credits: 3
CIS105, Survey of Computer Information Systems OR Permission of Program Director

Required Courses: Credits: 38
CIS126DL Linux Operating System 3
CNT140AA Introduction to Networks (4) 4
+CNT150AA Cisco – Routing and Switching Essentials (4) 4
+CNT160AA Scaling Networks 4
+CNT170AA Cisco – Connecting Networks 4
+CNT205 Cisco Certified Network Associate Security 4
+CNT202 Cisco Secure Firewall Appliance Configuration 4
+ITS110 Information Security Fundamentals 4
MST150++ Microsoft Windows (any MST150++ module) 3
+MST157DA Active Directory Windows Server Configuration 3

Restricted Elective: 3-4
+ CIS238DL Linux System Administration 3
+ MST15+ Microsoft Windows (any MST15++ module) 3-4
+ MST2++ Microsoft (any MST2++ module) 3-4
BPC170 Computer Maintenance I: A+ Essentials Prep 3
+BPC270 Computer Maintenance II: A+ Technician Prep 3
+CNT2++ Cisco (Any CNT2++ Module) 4

**Network Server Associate in Applied Science - Credit: 61-67 (3096)**

Description: The Associate in Applied Science (AAS) in Information Technology: Network Server program focuses on the skills needed to install, implement, manage, and troubleshoot networks and systems in both a Linux and Microsoft server environment.
Most complex networking environments today include multiple operating system platforms which include Linux and Microsoft servers. A Certificate of Completion (CCL) is also available.

Program Notes:
+ indicates course has prerequisites and/or co requisites. Students must earn a grade of “C” or better in all courses within the program. Students should select from the following courses in consultation with a department advisor.

Program Prerequisites: Credits: 3
CIS105, Survey of Computer Information Systems (3) or permission of Program Director

Required Courses: Credits: 32
CIS126DL Linux Operating System 3
+CIS238DL Linux System Administration 3
CNT140AA Introduction to Networks 4
+CNT150AA Cisco – Routing and Switching Essentials 4
+CNT160AA Scaling Networks 4
+CNT170AA Cisco – Connecting Networks 4
MST150++ Microsoft Windows (any MST150++ module) 3
+MST157DA Active Directory Windows Server Configuration 4
BPC170 Computer Maintenance I: A+ Essentials Prep 3

Restricted Electives: Courses: 7-8
+ BPC270 Computer Maintenance II: A+ Technician Prep 3
+CIS15+++ Programming (any CIS15+++ module) 3
CIS190 Introduction to Local Area Networks (3) OR
MST140 Microsoft Networking Essentials (3) 3
+ MST15+ Microsoft Windows (any MST15+) 3-4
+ MST2++ Microsoft (any MST2++) 3-4
+ ITS110 Information Security Fundamentals 4
+CIS239DL Linux Shell Scripting 3

General Education Requirement: Credits: 22-27

General Education CORE: Credits: 12-17
First-Year Composition: Credits: 6
Any approved General Education course in the First-Year Composition Area 6
Oral Communication: Credits: 3
Any approved General Education course in the Oral Communication Area 3
Critical Reading: Credits: 0-3
Any approved General Education course in the Critical Reading Area OR Equivalent as indicated by assessment. 0-3
Mathematics: Credits: 3-5
MAT120 Intermediate Algebra (5) OR
AT121 Intermediate Algebra (4) OR
MAT122 Intermediate Algebra (3) OR
MAT151 Intermediate Algebra (4) 3-5

General Education Distribution Credits: 10
Humanities & Fine Arts: Credits: 3
Any approved General Education course in the Humanities and Fine Arts Area 3
Social and Behavioral Sciences: Credits: 3
Any approved General Education course in the Social and Behavioral Sciences Area 3
Natural Sciences: Credits  
Any approved General Education course in the Natural Sciences Area  

Network Server
Certificate of Completion - Credits: 39-40 (5529)
Description: The Certificate of Completion (CCL) in Information Technology: Network Server program focuses on the skills needed to install, implement, manage, and troubleshoot networks and systems in both a Linux and Microsoft server environment. Most complex networking environments today include multiple operating system platforms which include Unix/Linux and Microsoft servers. An Associate in Applied Science (AAS) is also available.

Program Notes:
+ indicates course has prerequisites and/or co-requisites.
++ indicates any module
Students must earn a grade of “C” or better in all courses within the program.
Students should select from the following courses in consultation with a department advisor.

Program Prerequisites: Credits:  
CIS105, Survey of Computer Information Systems (3) OR  
permission of Program Director  

Required Courses: Credits: 32
CIS126DL Linux Operating System  
+CIS238DL Linux System Administration  
CNT140AA Introduction to Networks  
+CNT150AA Cisco – Routing and Switching Essentials  
+CNT160AA Scaling Networks  
+CNT170AA Cisco – Connecting Networks  
MST150++ Microsoft Windows (any MST150++ module)  
+CNT157DA Active Directory Windows Server Configuration  
MST150++ Microsoft Windows (any MST150++ module)  
BPC170 Computer Maintenance I: A+ Essentials Prep  

Restricted Elective: Credits: 7-8
+ BPC270 Computer Maintenance II: A+ Technician Prep  
+ CIS15+ Programming (any CIS15+) (3) OR  
+ CIS15+++ Programming (any CIS15+++ module) (3)  
CIS190 Introduction to Local Area Networks (3) OR  
MST140 Microsoft Networking Essentials (3)  
+ MST15+ Microsoft Windows (any MST15+)  
+ MST2++ Microsoft (any MST2++)  
+ ITS110 Information Security Fundamentals  
+CIS239DL Linux Shell Scripting  

Pharmacy: Customer Service
Certificate of Completion Credits: 17 (5348)
Description: The Certificate of Completion (CCL) in Pharmacy: Customer Service program is designed to provide students with the knowledge and skills needed to meet the challenges of working in the retail pharmacy environment. The courses will cover federal and state pharmacy regulations and pharmacy services including prescription dispensing and drug distribution and control. Emphasis will be on providing quality customer service and using effective communications and interpersonal skills when dealing with pharmacy customers and personnel.

Admission Criteria:
Submit current CPR card for Health Care Provider and maintain current status throughout the program.
Students must complete a basic physical exam by their doctor.
Proof of current immunization: Tuberculosis skin test (TB).

Program Notes:
+ indicates course has prerequisites and/or co-requisites.
Students must earn a grade of “C” or better for all courses within the program.
Program Prerequisites: None

Required Courses: Credits: 17
CSR139 Introduction to Retail Pharmacy Customer Care 3
+CSR156 Retail Pharmacy Procedures 2
+CSR160 Pharmacy Practice for the Customer Service Representative 1
+CSR162 Pharmacy Operations for the Customer Service Representative 3
+CSR280AB Customer Service Internship 2
GBS120 Workplace Communication Skills 3
PHT120 Pharmacy Technician Responsibilities 3

**Programming**

**Certificate of Completion - Credits 21-26 (5047)**

Description: The Certificate of Completion (CCL) in Programming is designed to prepare the student to work in the programming field. Courses focus on programming theory, Java programming, Visual Basic programming, and web programming.

Program Notes:
The Computer Information System (CIS) or the Computer Science (CSC) courses required by this program are not applicable if taken more than eight (8) years prior to the completion of the certificate program. Consult with an Academic Advisor for complete information.

Students must earn a grade of “C” or better for all courses required within the program.
+ indicates course has prerequisites and/or co-requisites.
++ indicates any module/suffixed courses.

Program Prerequisites: Credits: 0-5
Students selecting CSC110 in the Required Courses area must complete MAT120/MAT121/MAT122.

+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra (4) OR
+ MAT122 Intermediate Algebra (3) OR
Permission of Instructor 0-5

Required Courses: Credits
CIS105 Survey of Computer Information Systems 3
+ CIS119DO Introduction to Oracle: SQL (3) OR
+ CIS276DA MySQL Database (3) OR
+ CIS276DB SQL Server Database (3) 3
+ CIS159 Visual Basic Programming I 3
+ CIS162AD C#: Level I 3
+ CIS163AA Java Programming: Level I (3) OR
+ CSC110 Introduction to Computer Science (Java) (3) 3
+ CIS225AB Object-Oriented Analysis and Design (3) OR
+ CSC205 Object Oriented Programming and Data Structures (3) 3
+ CIS259 Visual Basic Programming II (3) OR
+ CIS262AD C# Level II (3) OR
+ CIS263AA Java Programming: Level II (3) 3

**Programming and Mobile Development**

**Associate in Applied Science - Credits: 61 (3099)**

Description: The Associate in Applied Science (AAS) in Information Technology: Programming and Mobile Development program is designed to provide students with the design and programming skills necessary for entry-level computer programming support positions, with an emphasis on mobile apps. A Certificate of Completion (CCL) in Information Technology: Programming and
Mobile Development program is also available.

Program Notes:
Students must earn a grade of "C" or better in all courses within the program.
Students should consult with a Department Advisor in arranging their schedules.
+ indicates course has prerequisites and/or co-requisites.

Program Prerequisites: Credits: 0-6
CIS105 Survey of Computer Information Systems (3) OR
Permission of division chair or department coordinator. 0-3
+ CIS150 Programming Fundamentals (3) OR
Permission of division chair or department coordinator. 0-3

Required Courses: Credits: 36
CIS120DF Adobe Photoshop Level I: Digital Imaging 3
CIS132 HTML / CSS (3) OR
CIS133DA Internet/Web Development Level I (3) 3

CIS159 Visual Basic Programming I 3
+ CIS162AD C#: Level I 3
+ CIS163AA Java Programming: Level I 3
+ CIS165 Introduction to IOS Application Development 3
+ CIS165DA Android Mobile Device Programming 3
+ CIS165DB C#/VB.NET: Windows 8 App Development 3
+ CIS166AA Introduction to JavaScripting 3
+ CIS233D+ Internet/Web Development (Any module) 3

CIS259 Visual Basic Programming II (3) OR
+ CIS262AD C#: Level II (3) 3
+ CIS263AA Java Programming: Level II 3

Restricted Electives: Credits: 0-3
Students may select zero (0) to three (3) credits from the following list of courses to complete the minimum 61 credits for the AAS degree, except courses used to satisfy the Required Courses area.

CIS117DM Microsoft Access: Database Management 3
CIS120DC Adobe Flash Level I: Digital Animation 3
CIS190 Introduction to Local Area Networks 3
CIS220DF Adobe Photoshop Level II: Advanced Digital Imaging 3

CIS259 Visual Basic Programming II (3) OR
+ CIS262AD C#: Level II (3) 3

CSC100 Introduction to Computer Science (C++) 3
EPS150 Introduction to Entrepreneurship 3
EPS180 Technology Business Planning 3
GBS151 Introduction to Business 3

General Education Requirements: Credits: 22-25
General Education Core: Credits: 12-15

First-Year Composition: Credits: 6
Any approved General Education course in the First-Year Composition Area 6

Oral Communication: Credits: 3
Any approved General Education course in the Oral Communication Area 3

Critical Reading: Credits: 0-3
Any approved general education course in the Critical Reading area OR equivalent as indicated by assessment. 0-3

Mathematics: Credits: 3
Any approved general education course in the Mathematics area. 3

General Education Distribution Credits: 10
Humanities & Fine Arts: Credits: 3
Any approved General Education course in the Humanities and Fine Arts Area 3

Social and Behavioral Sciences: Credits: 3
Any approved General Education course in the Social and Behavioral Sciences Area

Natural Sciences: Credits: 4
Any approved General Education course from the Natural Sciences Area

Programming and Mobile Development
Certificate of Completion - Credits: 36-39 (5193)
Description: The Certificate of Completion (CCL) in Information Technology: Programming and Mobile Development program is designed to provide students with the design and programming skills necessary for entry-level computer programming support positions, with an emphasis on mobile apps. An Associate in Applied Science (AAS) in Information Technology: Programming and Mobile Development program is also available.

Program Notes:
+ indicates course has prerequisites and/or co-requisites.
Students must earn a grade of “C” or better in all courses within the program.
Students should consult with a Department Advisor in arranging their schedules.

Program Prerequisites:
CIS105 Survey of Computer Information Systems (3) OR Permission of division chair or department coordinator. 0-3
+ CIS150 Programming Fundamentals (3) OR Permission of division chair or department coordinator. 0-3

Required Courses: Credits: 36
CIS120DF Adobe Photoshop Level I: Digital Imaging 3
CIS132 HTML/CSS (3) OR CIS133DA Internet/Web Development Level I (3)
+ CIS159 Visual Basic Programming I 3
+ CIS162AD C#: Level I 3
+ CIS163AA Java Programming: Level I 3
+ CIS165 Introduction to IOS Application Development 3
+ CIS165DA Android Mobile Device Programming 3
+ CIS165DB C#/.NET: Windows 8 App Development 3
+ CIS166AA Introduction to JavaScripting 3
+ CIS233D+ Internet/Web Development (Any module) 3
+ CIS259 Visual Basic Programming II (3) OR CIS262AD C#: Level II (3) 3
+ CIS263AA Java Programming: Level II 3

Real Estate: Prelicense
Certificate of Completion - Credits: 6.5 (5139)
Description: The Certificate of Completion (CCL) in Real Estate: Prelicense program is designed to prepare students with the
minimum coursework required by the state of Arizona for eligibility to take the state’s real estate salesperson’s license exam.

Admission Criteria: High school diploma or GED or equivalent. Current ASSET/COMPASS/ACCUPLACER placement tests reflecting eligibility for the following:
CRE101 College Critical Reading OR Equivalent
ENG101 First Year Composition OR ENG107 First-Year Composition for ESL OR Equivalent
MAT102 Mathematical Concepts/Applications OR Completion of higher level mathematics course OR GBS131 Business Calculations

Program Prerequisites: None

Required Courses: Credits: 6.5
REA179 Real Estate Principles I (3) AND
+ REA180 Real Estate Principles II (3) OR
REA201 Real Estate Principles I and II (6) 6
+ REA290AH Real Estate Seminar: Contract Writing 0.5

Recovery Support
Associate in Applied Science - Credits: 70-72 (3032)
Description: The Associate in Applied Science (AAS) in Recovery Support program prepares students for careers as behavioral health technicians, case managers, parent aides, family advocates, respite care workers, and paraprofessional counselors. The program includes courses designed to provide students with the skills necessary to deliver basic, specialized, and comprehensive behavioral health services. The core focus of the program is practical training and service learning experiences.

Program Notes:
+ indicates course has prerequisites and/or co requisites.
Students must earn a grade of “C” or better in each course in the Required Course area.

Program Prerequisites: None

Required Courses: Credits: 45
BHS101 Introduction to Ethical Counseling Issues 3
+ BHS105 Introduction to Human Relations 2
BHS115 Group Dynamics 3
BHS/SWU130 Addictions and Substance Use Disorders 3
+ BHS151 Communications Skills in Counseling I 3
+ BHS152 Communication Skills in Counseling II 3
+ BHS156 Supervised Practice I 3

BHS178 Peer Training for Behavioral Health Paraprofessionals (3) OR
+ BHS278 Recovery Coaching (3) 3
+ BHS204 Counseling in Multicultural Setting 3
+ BHS205 Therapeutic Intervention Models 3
+ BHS215 Group Process 3
+ BHS260 Case Report Writing 1
+ BHS263 Applied Case Report Writing 1
+ BHS290 Child & Family Advocacy 3
CPD102AD Eliminating Self-Defeating Behavior 2
PSY101 Introduction to Psychology 3
+ PSY240 Developmental Psychology 3

General Education Requirement: Credits 25-27

General Education Core Credits: 15-17

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

Oral Communication: Credits 3
COM100 Introduction to Human Communication (3) OR
COM100AA Intro to Human Communication Part I (1) AND
COM100AB Intro to Human Communication Part II (1) AND
COM100AC Intro to Human Communication Part III (1) OR
COM110 Interpersonal Communication (3) OR
COM230 Small Group Communication (3) 3

Critical Reading: Credits 3
+ CRE101 College Critical Reading I (3) OR Equivalent as indicated by assessment.

Mathematics: Credits: 3-5
Any approved general education course from the Mathematics area.

General Education Distribution: Credits 10

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

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

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

Retail Management
Associate in Applied Science - Credits: 61-63 (3048)
Description: The Retail Management degree is designed to prepare individuals working in the retail management, food industry, and related fields, for the mid-level management position challenges of the future. The curriculum encompasses business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment. Instruction will provide the background and knowledge necessary for students to develop the judgment skills they must exercise as business managers.

Program Notes:
+ indicates course has prerequisites and/or co requisites. Students must earn a grade of “C” or better in all courses within the program.

Program Prerequisites: None

Required Courses: Credits 24-27

Choose one of the following three accounting sequences:
ACC111 Accounting Principles I (3) AND
+ ACC230 Uses of Accounting Information I (3) AND
+ ACC240 Uses of Accounting Information II (3)
OR
ACC111 Accounting Principles I (3) AND
+ ACC112 Accounting Principles II (3) AND
+ ACC212 Managerial Accounting (3)
OR
ACC211 Financial Accounting (3) AND
+ ACC212 Managerial Accounting (3) 6-9

BPC110 Computer Usage and Applications (3) OR
CIS105 Survey of Computer Information Systems (3) 3

GBS110 Human Relations in Business and Industry (3) OR
MGT251 Human Relations in Business (3) 3

MGT101 Techniques of Supervision (3) OR
MGT229 Management and Leadership I (3) 3

MGT179 Utilizing the Human Resources Department (3) OR
MGT276 Personnel/Human Resources Management (3) 3

MKT268 Merchandising (3) OR
MGT180 Retail Management (3) 3

MKT271 Principles of Marketing 3

Restricted Electives: 9-15
Student must complete additional nine (9) to fifteen (15) credits from GBS, MGT, and/or MKT prefixed courses (except courses used to satisfy Required Courses area nor excluded below) to complete a minimum of 61 total program credits. Must include at least one MKT course.

GBS+++++ Any GBS General Business course(s) 0-12
MGT+++++ Any MGT Management course(s) except MGT180 0-12
MKT+++++ Any MKT Marketing course(s) except MKT268 3-15

General Education Requirements: Credits 22-27

General Education Core: Credits: 11-15

First-Year Composition: Credits: 6
+ENG101 First-Year Composition (3) OR
+ENG107 First-Year Composition for ESL (3) AND
+ENG102 First-Year Composition (3) OR
+ENG108 First-Year Composition for ESL (3) OR
+ENG111 Technical Writing (3) 6
ENG102 or ENG108 recommended for students pursuing a BAS degree at an Arizona university.

Oral Communication: Credits: 3
COM100 Introduction to Human Communication 3

Critical Reading: Credits: 3
CRE101 Critical and Evaluative Reading I (3) OR
Equivalent by assessment 3

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

General Education Distribution: Credits: 10
Humanities and Fine Arts: Credits: 3
Any approved general education course from the Humanities and Fine Arts and Design area. 3

Social and Behavioral Sciences: Credits: 3
SBU200 Society and Business 3

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

**Certificate of Completion - Credits: 24 (5286)**

**Description:** The Certificate of Completion (CCL) in Retail Management is designed to prepare individuals working in the Retail industry, and related fields, for the industry training needs in supervision and management, marketing, financial management, and business planning. The curriculum encompasses several business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment.

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

**Program Prerequisites:** None

**Required Courses: Credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC111 Accounting Principles I (3) OR ACC211 Financial Accounting (3)</td>
<td>3</td>
</tr>
<tr>
<td>BPC110 Computer Usage and Applications (3) OR CIS105 Survey of Computer Information Systems (3)</td>
<td>3</td>
</tr>
<tr>
<td>COM100 Introduction to Human Communication</td>
<td>3</td>
</tr>
<tr>
<td>GBS110 Human Relations in Business and Industry (3) OR MGT251 Human Relations in Business (3)</td>
<td>3</td>
</tr>
<tr>
<td>MGT180 Retail Management (3) OR GBS270AC Business Internship (3) OR GBS296WC Cooperative Education (3) OR GBS298AC Special Projects (3)</td>
<td>3</td>
</tr>
<tr>
<td>MGT101 Techniques of Supervision (3) OR MGT229 Management and Leadership I (3)</td>
<td>3</td>
</tr>
<tr>
<td>MGT179 Utilizing the Human Resources Department (3) OR MGT276 Personnel/Human Resources Management (3)</td>
<td>3</td>
</tr>
<tr>
<td>MKT271 Principles of Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Restricted Electives:** None

### Small Business Entrepreneurship

**Certificate of Completion - Credits 11 (5192)**

**Description:** The Certificate of Completion (CCL) in Small Business Entrepreneurship program prepares students to acquire the skills, tools and knowledge necessary for successful start-up and operations of a profit-making business. Emphasis is placed on evaluating potential business opportunities, developing a business plan, and practical application of small business operating principles. Students develop a foundation of business start-up strategies and practices that will enable them to prosper in the ever-changing small business environment.

**Program Notes:**
+ indicates course has prerequisites and/or co requisites.
Students must earn a grade of “C” or better in all courses within the program.

**Program Prerequisites:** None

**Required Courses: Credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPS195 Business Start-Up and Planning</td>
<td>2</td>
</tr>
<tr>
<td>SBS200 Small Business Operations</td>
<td>2</td>
</tr>
<tr>
<td>SBS202 Small Business Bookkeeping and Tax Preparation</td>
<td>1</td>
</tr>
<tr>
<td>SBS203 Financing and Cash Management for a Small Business</td>
<td>1</td>
</tr>
<tr>
<td>SBS204 Small Business Marketing &amp; Advertising</td>
<td>2</td>
</tr>
</tbody>
</table>
### Small Business Start-Up
#### Certificate of Completion - Credits: 12 (5706)
**Description:** The Certificate of Completion (CCL) in Small Business Start-Up program is designed to meet the needs of individuals who wish to become entrepreneurs. Courses provide a background in marketing, management, finance, and a capstone course in which students complete a business plan. The goal of the Small Business Start-Up certificate is to create a foundation for prospective small business owners and contribute to the long-term success of the business community.

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

**Program Prerequisites:** None

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT253 Owning and Operating a Small Business</td>
<td>3</td>
</tr>
<tr>
<td>MKT271 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>SBS213 Hiring and Managing Employees</td>
<td>1</td>
</tr>
<tr>
<td>SBS214 Small Business Customer Relations</td>
<td>1</td>
</tr>
<tr>
<td>SBS220 Internet Marketing for Small Business</td>
<td>2</td>
</tr>
<tr>
<td>SBS230 Financial &amp; Tax Management for Small Business</td>
<td>2</td>
</tr>
</tbody>
</table>

### Storytelling
#### Academic Certificate of Completion - Credits 30 (6200)
**Description:** The Academic Certificate (AC) in Storytelling is not designed to prepare students for employment in a specific occupation. This program is designed to provide students with an understanding of universal themes and basic practices, which are the foundation for storytelling. While completion of this certificate does not lead to a particular degree program, it does provide interactive storytelling training, which will enhance the skills of persons in areas such as education, library science, the arts, human relations, law, mental health, law enforcement, business, prevention programs, the ministry, and interpretive settings such as museums and parks. This program will also aid students interested in enhancing interpersonal relations skills and in using stories in family settings.

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

**Program Prerequisites:** None

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STO282AC Volunteerism for Education: A Service Learning Experience</td>
<td>3</td>
</tr>
<tr>
<td>STO286 Using Storytelling in a Variety of Settings (3) OR EDU283AA/STO289AA Using Storytelling in Educational Settings (1) OR STO289AB Using Storytelling in Business Settings (1) OR</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>STO289AC</td>
<td>Using Storytelling in Healing Settings (1) OR</td>
</tr>
<tr>
<td>STO289AD</td>
<td>Using Storytelling in Interpretive Settings (1)</td>
</tr>
<tr>
<td>STO292</td>
<td>The Art of Storytelling (3) OR</td>
</tr>
<tr>
<td>EDU292</td>
<td>The Art of Storytelling (3) OR</td>
</tr>
<tr>
<td>HUM292</td>
<td>The Art of Storytelling (3) OR</td>
</tr>
<tr>
<td>+STO293</td>
<td>The Art of Storytelling II</td>
</tr>
<tr>
<td>STO294</td>
<td>Multicultural Folktales (3) OR</td>
</tr>
<tr>
<td>EDU294</td>
<td>Multicultural Folktales (3) OR</td>
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<tr>
<td>ENH294</td>
<td>Multicultural Folktales (3) OR</td>
</tr>
<tr>
<td>+STO295</td>
<td>Multicultural Folktales II</td>
</tr>
<tr>
<td>STO291AA</td>
<td>Storytelling Circle</td>
</tr>
<tr>
<td>STO297</td>
<td>Telling Personal Stories</td>
</tr>
<tr>
<td>STO298++</td>
<td>Special Projects (*any module)</td>
</tr>
<tr>
<td>THP112</td>
<td>Acting I</td>
</tr>
<tr>
<td>THP211AB</td>
<td>Creative Drama: Storytelling &amp; Puppets</td>
</tr>
</tbody>
</table>

**Supervision and Management I Certificate of Completion - Credits: 15 (5721)**

Description: The Certificate of Completion (CCL) in Supervision and Management I is designed to provide knowledge in the following areas: Computer concepts of information processing, supervision, and human relations. Students completing this program will be able to perform the supervisory and management functions of first-line supervisors. Students should have a desire to supervise employees and work in a business environment.

Program Notes:
+ indicates course has a prerequisite and/or co requisites
Students must earn a grade of “C” or better for all courses listed within the program

Program Prerequisites: None

<table>
<thead>
<tr>
<th>Required Courses: Credits</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS105</td>
<td>3</td>
</tr>
<tr>
<td>MGT229</td>
<td>3</td>
</tr>
<tr>
<td>MGT230</td>
<td>3</td>
</tr>
<tr>
<td>MGT251</td>
<td>3</td>
</tr>
</tbody>
</table>

Restricted Electives: Credits
Note: Students should select from the following courses in consultation with a departmental advisor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBS151</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>MGT135</td>
<td>Global Procurement and Supply Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT277</td>
<td>Labor Relations</td>
<td>3</td>
</tr>
<tr>
<td>MKT263</td>
<td>Advertising Principles</td>
<td>3</td>
</tr>
<tr>
<td>MKT267</td>
<td>Principles of Salesmanship</td>
<td>3</td>
</tr>
<tr>
<td>+MGT296WA</td>
<td>Cooperative Education</td>
<td>1</td>
</tr>
<tr>
<td>+MGT296WB</td>
<td>Cooperative Education</td>
<td>2</td>
</tr>
</tbody>
</table>
Supervision and Management II
Certificate of Completion - Credits: 30-31 (5722)
Description: The Certificate of Completion (CCL) in Supervision and Management II is designed to provide knowledge in the following areas: accounting, business communications, business organizations, and management leadership trends. Students completing this program will be able to perform supervisory functions beyond that of a first-line supervisor. Students pursuing this occupation should have a desire to supervise employees, oversee management and decisions of first line supervisors, and make supervisory decisions in a business.

Program Notes:
+ indicates course has a prerequisite and/or co requisites. Students must earn a grade of “C” or better for all courses listed within the program

Program Prerequisite: Credits
Certificate of Completion in Supervision and Management I (5721)

Required Courses: Credits
ACC107 Bookkeeping Theory & Practice (4) OR
ACC111 Accounting Principles I (3) 3-4
GBS131 Business Calculations 3
+GBS233 Business Communication 3
GBS205 Legal, Ethical/Reg. Issues In Business 3
MKT271 Principles of Marketing (3) OR
MGT276 Personnel/Human Resources Management (3) 3

Sustainability
Academic Certificate of Completion - Credits 15-17 (6240)
Description: The Academic Certificate (AC) in Sustainability is interdisciplinary and builds a strong academic expertise along one of four significant pillars of sustainability, where students will examine and assess how to minimize unintended consequences and enhance a mutually productive relationship between man and nature. The four pillars are organized into specialized tracks, including land use and human transformations of the earth, competition for water and other natural resources from the earth systems, political and economic treatment of the earth, and coupled human-environment interactions.

Program Notes:
Students must earn a grade of “C” or better in all courses within the program.
+ indicates course has prerequisites and/or co requisites.

Program Prerequisites: None

Required Courses: Credits
SSH111 Sustainable Cities
SUS110 Sustainable World

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

Track I: Earth Systems Credits:
AGS260 Origin and Composition of Soils 4
AGS261 Soil Fertility and Management 3
BIO105 Environmental Biology 4
+ BIO182 General Biology (Majors) II 4

GLG101 Introduction to Geology I-Physical Lecture (3) and
GLG103 Introduction to Geology I-Physical Lab (1) 4
GLG110 Geological Disasters and the Environment (3) and
GLG111 Geological Disasters and the Environment Lab (1) 4

GPH111 Introduction to Physical Geography 4
+ GPH211 Landform Processes 4

GPH213 Introduction to Climatology (3) and
+ GPH215 Introduction to Climatology Laboratory (1) 4

Track II: Social, Political, Economic Treatment of the Earth Credits: 9
ECN212 Microeconomic Principles 3
+ ECN263 The Economics of Natural Resources, Population and the Environment 3
ENH206 Nature and Environmental Literature 3
GCU102 Introduction to Human Geography 3
GCU141 Introduction to Economic Geography 3
+ HRM290 Ecotourism 3
PHI216 Environmental Ethics 3
POS120 World Politics 3
SBU200 Society and Business 3
SOC251 Social Problems 3

Track III: Coupled Human-Environment Systems Credits: 9-12
ASB102 Culture in Globalization World 3
ASB222 Buried Cities and Lost Tribes: Old World (3) OR
ASB223 Buried Cities and Lost Tribes: New World (3) 3
ASB226 Human Impacts on Ancient Environments 3
ASM104 Bones, Stones, and Human Evolution 4
BIO105 Environmental Biology 4
BIO108 Plants and Society 4
CHM107 Chemistry and Society 3

GCU121 World Geography I: Eastern Hemisphere (3) OR
GCU122 World Geography II: Western Hemisphere (3) 3
+ GPH210 Society and Environment 3
GPH267 Extreme Weather and Climate 3

Track IV: Human Transformation of the Earth Credits: 9-11
ASB100 Introduction to Global Health 3
CNS205 Sustainable Construction/LEED Certification 3
ECE111 Bioengineering Systems 3
FON135 Sustainable Cooking 3
FON143 Food and Culture 3
FON161 Sustainable Food Production Systems 3
+ INT170 Interior Materials 3
SCT100 Introduction to Sustainable Built Environments 3

SCT271AA Sustainable Design Internship (1) OR
SCT271AB Sustainable Design Internship (2) 1-2
SOC180 Social Implications of Technology 3
WED124 Environmental Wellness 3

Sustainability/Ecological Literacy
Academic Certificate of Completion Credits 16 (6232)
Description: The interdisciplinary Academic Certificate (AC) in Sustainability and Ecological Literacy enhances students’
understanding of sustainable living practices associated with economics, equity and the environment. Through a combination of coursework and experiential learning, students engage in critical thinking, inquiry, and discourse, skills necessary for becoming socially responsible citizens who are ecologically and environmentally aware. The certificate is designed for, although not limited to, students seeking an Associate in Arts Degree and planning transfer to four-year colleges and universities.

Program Notes:
Students must earn a grade of “C” or better in all courses within the program.
+ indicates course has prerequisites and/or co requisites.

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

Required Courses: Credits 7
PHI216 Environmental Ethics 3

BIO105 Environmental Biology (4) OR
GLG110 Geological Disasters and the Environment (3) AND
GLG111 Geological Disasters and the Environment Lab (1) 4

Restricted Electives: Credits
Humanities, Social Science and Wellness: Credits: 9

Students will choose 2 different courses from the following list:
+ ECN263 The Economics of Natural Resources, Population and the Environment (3)
ENH206 Nature and Environmental Literature (3)
ENH260 Literature of the Southwest (3)
HUM201 Humanities: Universal Themes (3)
REC150AB Outdoor Adventure Skills (3)
SBU200 Society and Business (3) 6

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

Web and Graphic Design
Associate in Applied Science - Credits: 61-65 (3100)
Description: The Associate in Applied Sciences (AAS) degree in Information Technology: Web and Graphic Design is designed to enhance the information technology skills gained, focusing on the analysis, design, and programming skills necessary for entry-level computer programming support positions. A Certificate of Completion (CCL) is also available.

Program Notes:
+ indicates course has prerequisites and/or co requisites. Students must earn a grade of “C” or better in all courses within the program. Students should select from the following courses in consultation with a Department Advisor.

Program Prerequisites: None

Required Courses: Credits: 27
CIS105 Survey of Computer Information Systems 3
CIS120DB Computer Graphics: Adobe Illustrator 3
CIS120DC Flash: Digital Animation 3
CIS120DF Adobe Photoshop Level I: Digital Imaging 3
CIS133DA Internet/Web Development Level I 3
+CIS220DC Flash: Advanced Animation and ActionScript 3
<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS220DF</td>
<td>Adobe Photoshop Level II: Advanced Digital Imaging</td>
<td>3</td>
</tr>
<tr>
<td>CIS233DA</td>
<td>Internet/Web Development Level II (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>CIS233DC</td>
<td>Internet Web Development: Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>CIS235</td>
<td>E-Commerce</td>
<td>3</td>
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</tbody>
</table>

**Restricted Electives: Credits:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART100</td>
<td>Introduction to Computer Graphic Art</td>
<td>1</td>
</tr>
<tr>
<td>CIS190</td>
<td>Introduction to Local Area Networks (3)</td>
<td>1</td>
</tr>
<tr>
<td>CNT140AA</td>
<td>Cisco Networking Fundamentals (4) OR</td>
<td>4</td>
</tr>
<tr>
<td>MST150++</td>
<td>Microsoft Windows (Any MST150++ module) (3)</td>
<td>3</td>
</tr>
<tr>
<td>CIS243D+</td>
<td>Internet/Web Development Level III (any module)</td>
<td>3</td>
</tr>
<tr>
<td>CIS259</td>
<td>Visual Basic Programming II (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>CIS262AD</td>
<td>C#: Level II (3) OR</td>
<td>3</td>
</tr>
<tr>
<td>CIS263AA</td>
<td>Java Programming: Level II (3)</td>
<td>3</td>
</tr>
<tr>
<td>GBS151</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**General Education Requirements: Credits:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Year Composition</td>
<td>Any approved General Education course in the First-Year Composition Area</td>
<td>6</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>Any approved General Education course in the Oral Communication Area</td>
<td>3</td>
</tr>
<tr>
<td>Critical Reading</td>
<td>Any approved General Education course in the Critical Reading Area</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MAT120 Intermediate Algebra (5) OR</td>
<td>3-5</td>
</tr>
<tr>
<td></td>
<td>MAT121 Intermediate Algebra (4) OR</td>
<td>3-5</td>
</tr>
<tr>
<td></td>
<td>MAT122 Intermediate Algebra (3) OR</td>
<td>3-5</td>
</tr>
<tr>
<td></td>
<td>MAT151 Intermediate Algebra (4)</td>
<td>3-5</td>
</tr>
<tr>
<td>General Education Distribution Credits</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Humanities &amp; Fine Arts</td>
<td>Any approved General Education course in the Humanities and Fine Arts Area</td>
<td>3</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>Any approved General Education course in the Social and Behavioral Sciences Area</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>Any approved General Education course from the Natural Sciences Area</td>
<td>3</td>
</tr>
</tbody>
</table>

**Web and Graphic Design Certificate of Completion - Credits 36-38 (5168)**

Description: The Certificate of Completion in Information Technology: Web and Graphic Design is designed to enhance the information technology skills gained and focuses on the analysis, design, and programming skills necessary for entry-level web development support positions. An Associate in Applied Science (AAS) is also available.

Program Notes: + indicates course has prerequisites and/or co-requisites. Students must earn a grade of “C” or better in all courses within the program. Students should select from the following courses in consultation with a department advisor.

Program Prerequisites: None
Degrees and Certificates

Web Application Development

Certificate of Completion - Credits: 12 (5835) NEW

Description: The Certificate of Completion (CCL) in Web App Development program is designed to provide students with the design and programming skills necessary for entry-level positions creating web apps for multiple mobile device platforms using HTML, CSS, and JavaScript.

Program Notes:
Students must earn a grade of “C” or better for all courses within the program.
Students should consult with a Department Advisor / faculty member in arranging their schedules.
+ indicates course has prerequisites and/or co-requisites.
++ indicates any module/suffixed courses.

Program Prerequisites: Credits: None

Required Courses: Credits: 12
CIS120DF Adobe Photoshop Level I: Digital Imaging 3
CIS133DA Internet/Web Development Level I 3
+CIS166AA Introduction to JavaScripting 3
Web Design
Certificate of Completion Credits 18 (5159)
Description: The Certificate of Completion (CCL) in Web Design is intended for those interested in designing and maintaining web pages for personal or small business use.

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

Program Prerequisites: None

Required Courses: Credits
CIS120DC Adobe Flash Level I: Digital Animation 3

CIS120DF Adobe Photoshop Level I: Digital Imaging (3) OR
CIS120AF Computer Graphics: Adobe Photoshop: Level I (1) AND
CIS120BF Computer Graphics: Adobe Photoshop: Level II (1) AND
CIS120CF Computer Graphics: Adobe Photoshop: Level III (1) 3

CIS133DA Internet/Web Development Level I 3
+ CIS166++ Web Scripting (any module) 3
+ CIS233DA Internet/Web Development Level II 3
+ CIS235 e-Commerce 3

Editor’s Note: At the time of publication CCL 5159 was pending DOE approval.
COURSE SUBJECTS BY DIVISION

Division of BIT, Health and Wellness, Library, and CTL (OCCCTLL)
CHAIRPERSON: Mark Nielsen .......................(602) 243-8012
SUBJECTS:
  ACC  Accounting
  AJS  Administration of Justice Studies
  BHS  Behavioral Health Sciences
  BPC  Business/Personal Computers
  CIS  Computer Information Systems
  CNT  Cisco Networking Technology
  CSC  Computer Science
  CSR  Customer Service Representative
  CWE  Career Work Experience
  ECN  Economics
  EPS  Entrepreneurial Studies
  ESS  Employment Support Systems
  EXS  Exercise Science
  FIN  Financial Planning
  FON  Food and Nutrition
  GBS  General Business
  HCC  Health Care Curriculum
  HCR  Health Care Related
  HES  Health Science
  IFS  Information Studies
  IND  Industry
  ITS  Information Technology Security
  MAS  Medical Assisting
  MGT  Management
  MKT  Marketing
  MST  Microsoft Technology
  MTR  Medical Transcription
  PED  Physical Education
  PHT  Pharmacy Technology
  REA  Real Estate
  REC  Recreation
  SBS  Small Business Management
  SCT  Sustainability/Career and Technical
  SBU  Society and Business
  SWU  Social Work
  WED  Wellness Education

Division of Communication, Fine Arts and Social Sciences (CFASS)
CHAIRPERSON: Dr. Jerome Garrison ..........(602) 243-8382
SUBJECTS:
  AIS  American Indian Studies
  ARH  Art Humanities
  ART  Art
  ASB  Anthropology (Soc/Behavioral Sciences)
  CFS  Child Family Studies
  COM  Communication
  DAH  Dance Humanities
  DAN  Dance
  ECH  Early Childhood Education
  EDU  Education
  EED  Early Education
  ENH  English Humanities
  HIS  History
  HON  Honors
  HUM  Humanities
  MHL  Music: History/Literature
  MTC  Music: Theory/Composition
  MUC  Music: Commercial Business
  MUE  Music: Education
  MUP  Music: Performance
  PHI  Philosophy
  POS  Political Science
  PSY  Psychology
  REL  Religious Studies
  SOC  Sociology
  SSH  Sustainability –Social Sciences/Humanities
  STO  Storytelling
  THE  Theater
  THF  Theatre and Film
  THP  Theater Performance/Production
  YAQ  Yaqui Indian History & Culture

Division of Language Arts (LA)
CHAIRPERSON: Jim Smith ....................(602) 305-5771
SUBJECTS:
  ARB  Arabic
  CRE  Critical Reading
  CRW  Creative Writing
  ENG  English
  ENH  English Humanities
  ESL  English as a Second Language
  FRE  French
  GER  German
  NAV  Navajo
  RDG  Reading
  SLG  Sign Language
  SPA  Spanish
  SPH  Spanish Humanities
  WST  Women’s Studies
  YAQ  Yaqui Indian History & Culture (Language)

Division of Math, Science, Engineering, and Counseling (MSEC)
CHAIRPERSON: Dr. Jacqueline Levy ..........(602) 243-8086
SUBJECTS:
  AAA  Advancing Academic Achievement
  AGS  Agricultural Science
  ASM  Anthropology (Science/Math)
  AST  Astronomy
  BIO  Biology
  CHM  Chemistry
  CPD  Counseling and Personal Development
  ECE  Engineering Science
  EEE  Electrical Engineering
  GCU  Cultural Geography
  GLG  Geology
  GPH  Physical Geography
  MAT  Mathematics
  PHS  Physical Science
  PHY  Physics
  PLB  Phlebotomy
  SUS  Sustainability/Natural Sciences
OFFICIAL COURSE DESCRIPTIONS

ADVANCING ACADEMIC ACHIEVEMENT (AAA)
AAA115 - Creating College Success
LEC 1 Credit 1 Period
Strategies to create success in college. Methods for selecting and developing effective academic strategies, increasing self-awareness and developing self-management strategies. Elements of college resources and relationships with others explored in support of students' educational experience. Prerequisites: None. Cross-References: CPD115

ACCOUNTING (ACC)
ACC105 - Payroll, Sales and Property Taxes
LEC 3 Credits 3 Periods
Tax reporting for payroll, sales, and personal property. Prerequisites: None.

ACC 107 - Bookkeeping Theory & Practice
LEC + LAB 4 Credits 5 Periods
Fundamental accounting practices; application to retail stores, professional firms, and personal service operations. Prerequisites: None.

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

ACC112 - Accounting Principles II
LEC 3 Credits 3 Periods
Continuation of the fundamental theory of accounting principles and procedures, including interpretation of general purpose financial statements. Prerequisites: ACC111 with a grade of “C” or better, or permission of department/division.

ACC115 - Computerized Accounting
LEC + LAB 2 Credits 3 Periods
Mastery of a microcomputer accounting system including the general ledger, accounts receivable, accounts payable and payroll. Prerequisites: ACC107, or higher level accounting course, or permission of instructor.

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

ACC211 - Financial Accounting
ACC 221
LEC 3 Credits 3 Periods
Introduction to theory and practice in the preparation and interpretation of general purpose financial statements. Prerequisites: None.

ACC212 - Managerial Accounting
ACC2202
LEC + LAB 3 Credits 3 Periods
Development and analysis of accounting information for managerial planning and control. Prerequisites: A grade of “C” or better in (ACC111 and ACC112), or ACC211, and (CIS105 or permission of Department or Division).

ACC221 - Tax Accounting
LEC 3 Credits 3 Periods
Preparation of and accounting procedures for individuals; introduction to partnerships and corporate tax structures. Prerequisites: ACC111 or ACC211 or permission of Department or Division.

ACC230 - Uses of Accounting Information I
LEC 3 Credits 3 Periods
Introduction to the uses of accounting information for internal and external purposes with emphasis on financial statement analysis. Prerequisites: Grade of “C” or better in ACC111 or ACC211, or a grade of “C” or better in (ENG101 and MAT151 and CRE101), or equivalent, or satisfactory score on District placement exam.

ACC240 - Uses of Accounting Information II
LEC 3 Credits 3 Periods
Introduction to the uses of accounting information for internal and external purposes with emphasis on analysis for use by management. Prerequisites: ACC 230

AGRICULTURE (AGS)
AGS260 – Origin and Composition of Soils
LEC 4 Credits 3 Periods
LAB 0 Credit 3 Periods
Derivation, classification, and evaluation of soils; emphasizing their chemical, physical and biological properties in relation to plant growth. Prerequisites: None

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

AMERICAN INDIAN STUDIES (AIS)
AIS110 – Navajo Government
Addresses and examines major historical developments of the Navajo People with a focus on government, law, society, livelihood, tradition, and culture. Includes the major components and operation of Navajo government and related tribal laws, such as Title II and Title VII of the Navajo Nation Code, as well as the significance of the Treaty of 1868. Federal Indian policies and their impact on Navajo society and government, the importance of federal and tribal citizenship and related federal and tribal laws, and the role of the Navajo clanship system and other relevant cultural concepts addressed. Prerequisites: None General Education Designation: Cultural Diversity – [C]; General Education Designation: Historical Awareness – [H]

ADMINISTRATION OF JUSTICE (AJS)
AJS101 - Introduction to Criminal Justice
AJS 1101
LEC  3 Credits  3 Periods
An introduction to crime and society’s responses to it. Examines the nature and causes of crime, the criminal law, constitutional safeguards, and the organization and operation of the criminal justice system including the police, courts, jails, prisons, probation and parole departments, and community corrections agencies. Covers the history of the criminal justice system, terminology and career opportunities. Prerequisites: None. General Education Designation: Social and Behavioral Sciences: [SB]

AJS109 – Substantive Criminal Law
LEC  3 Credits  3 Periods
Covers philosophy of legal sanctions and historical development from the common law to modern American criminal law, classifications of crimes, elements of and parties to crimes, general definition of crimes, common defenses utilized. Includes specific offenses and the essential elements of each offense. Required in AJS curriculum. Prerequisites: None

AJS113 - Criminal Justice Crime Control Policies and Practices
LEC  3 Credits  3 Periods
Focus on changing the distribution of crime opportunities rather than offender motivation. Topics include application of situational crime prevention strategies, problem-oriented crime control approaches, hot spots policing, defensible space, and crime prevention through defensible space. Prerequisites: None.

AJS123 - Ethics and the Administration of Justice
LEC  3 Credits  3 Periods
Introduces and explores ethical issues and the justice system. Focuses on ethics and the law, the police, courts and corrections. Reviews ethical theory, concepts and practices as they relate to administration of justice. Encourages critical thinking and value decision making in criminal justice system

AJS201 - Rules of Evidence
LEC  3 Credits  3 Periods
A practical insight into the rules of evidence to include how to recognize evidence: the general rules governing admissibility of evidence; the “hearsay” rule and its exceptions; the use of documentary evidence, written memoranda, photographs, and recordings, corpusdelicti, opinion evidence, circumstantial evidence, evidential privileges. Required in AJS curriculum. Prerequisites: None.

AJS210 - Constitutional Law
LEC  3 Credits  3 Periods
An examination of the U.S. Constitution as it relates to the law enforcement function. Includes statutory law and judicial decisions governing the areas of arrest, search and seizure, interrogations and confessions, self-incrimination and other constitutional guarantees. Required in AJS curriculum. Prerequisites: None.

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

AJS225 - Criminology
LEC  3 Credits  3 Periods
Study of deviance, society’s role in defining behavior; theories of criminality and the economic, social, and psychological impact of crime; relationships between statistics and crime trends. Examines crime victimization and the various types of crime and categories of offenders. Required in the AJS program.

AJS270 - Community Relations
LEC  3 Credits  3 Periods
Examination, recognition and understanding of community problems; community action programs; methods of coping with human behavior, victimology, conflict and communication; ethnic and minority cultures and environments; the community and relationships with the criminal justice system. Prerequisites: None. General Education Designation: Social and Behavioral Sciences – General Education Designation: Humanities and Fine Arts - [SB]

ART HUMANITIES (ARH)

ARH100 - Introduction to Art
LEC  3 Credits  3 Periods
Understanding and enjoyment of art through study of painting, sculpture, architecture design, photography, and decorative arts. Emphasis on contemporary topics and cultural diversity in the arts. Prerequisites: None. General Education Designation – Humanities and Fine Arts - [HU]

ARH101 - Prehistoric through Gothic Art
LEC  3 Credits  3 Periods
History of art from prehistoric through medieval Period. Prerequisites: None. General Education Designation: Historical Awareness - [H]; Humanities and Fine Arts – [HU]

ARH102 - Renaissance Through Contemporary Art
LEC  3 Credits  3 Periods
History of art from around the world from the Renaissance through contemporary period. Prerequisites: None. General Education Designation: Historical Awareness - [H]; Humanities and Fine Arts – [HU]

ART (ART)

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

ART111 - Drawing I
LEC  1 Credit  2 Periods
Fundamental principles of drawing. Emphasis on composition and facility in objective and expressive representation, using variety of drawing media. Prerequisites: None.
ART112 - Two-Dimensional Design

LEC + LAB 3 Credits  6 Periods
Study of fundamental elements and principles of two dimensional design. Prerequisites: None.

ART131 - Photography I

LEC + LAB 3 Credits  6 Periods
Basic photographic principles and techniques. Basic camera functions and controls. Experience in the image-making process by creating and editing photographs for various display environments. Introduction to the photographic aesthetic and photography's role in society. Prerequisites: None. Course Notes: Camera required.

ART122 - Drawing and Composition II

LEC + LAB 3 Credits  6 Periods
Emphasis on composition and exploration of drawing media. Prerequisites: ART111.

ART142 - Introduction to Digital Photography

LEC + LAB 3 Credits  6 Periods
Fundamentals of digital photography. Includes camera operations, exposure techniques, introduction to digital output, and theory of digital photography. Prerequisites: None.

ART143 - Intermediate Digital Photography

LEC + LAB 3 Credits  6 Periods
Intermediate theory and techniques of digital photography. Aesthetic awareness and personal expression from image capture through intermediate techniques in the digital darkroom. Introduction to high-resolution digital output. Prerequisites: ART142 or permission of instructor. Course Note: Semi-adjustable, high-resolution digital camera is required.

ART161 - Ceramics I

LEC + LAB 3 Credits  6 Periods
Introduction to ceramic materials and techniques of hand construction, decorating, glazing and throwing on potter's wheel. Prerequisites: None.

ART162 - Ceramics II

LEC + LAB 3 Credits  6 Periods
Major emphasis on wheel throwing, glaze making and decorating techniques. Prerequisites: ART161.

ART211 - Drawing and Composition III

LEC + LAB 3 Credits  6 Periods
Advanced development of drawing skill with emphasis on compositional theory. Prerequisites: ART122 or permission of instructor.

ART222 - Drawing and Composition IV

LEC + LAB 3 Credits  6 Periods
Further study of drawing techniques with emphasis on individual problems and techniques. Prerequisites: ART211 or permission of instructor.

ART255AB - The Portfolio

LEC 1 Credit(s)  1 Period
Choosing the right pieces to include, presenting art work, developing the portfolio. Prerequisites: ART182, or ART/MMT185, or ART255AA, or permission of instructor.

ART261 - Ceramics III

LEC + LAB 3 Credits  6 Periods
Emphasis on wheel throwing skill and individual style development. Prerequisites: ART162.

ART262 - Ceramics IV

LEC + LAB 3 Credits  6 Periods
Experimental work in clays and glazes. Prerequisites: ART261.

ART298AA - Special Projects

LAB 1 Credit  1 Period
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or instructor.

ANTHROPOLOGY (ASB)

ASB211 – Women in Other Cultures

LEC 3 Credits  3 Periods
Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies. Prerequisites: None. General Education Designation: Global Awareness - [G]; General Education Designation: Humanities and Fine Arts - [HU]; General Education Designation: Social and Behavioral Sciences - [SB]

ASTRONOMY (AST)

AST101 – Survey of Astronomy

LEC 3 Credits  3 Periods
Survey of astronomy for the nontechnical student. The history, content, and evolution of the solar system and the universe in general. Astronomical principles and instrumentation.
The planets, moons, sun, comets, stars and star formation, galaxies, and cosmology. Prerequisites: None

General Education Designation: Natural Sciences (General) - [SG] in combination with: AST102

AST102 – Survey of Astronomy Laboratory
LEC  1 Credit  3 Periods
Astronomical observations and exercises designed to familiarize students with the sky, telescopes, and methods used in astronomy. Prerequisites: None. May accompany AST101. General Education Designation: Natural Sciences (General) [SG] in combination with AST101

BEHAVIORAL HEALTH SERVICES TECHNOLOGY (BHS)

BHS101 - Introduction to Ethical Counseling Issues
LEC  3 Credits  3 Periods
Explanation of expectations and limitations of the role of the behavioral health professional on a counseling team. Exposure to the variety of modes of work available to the behavioral health professional, the ethical obligations and responsibilities of working with clients under professional supervision. Prerequisites: None.

BHS105 - Introduction to Human Relations
LEC  2 Credits  2 Periods
Introduction to the field of Behavioral Health Professionals including exposure to basic counseling skills. Prerequisites: None.

BHS115 - Group Dynamics
LEC  3 Credits  3 Periods
Participation in group processes with focus on group dynamics. Exploration of group developmental stages and various counseling approaches and techniques. Prerequisites: None.

BHS130 – Addictions and Substance Use Disorders
LEC  3 Credits  3 Periods
Sociological, psychological and physiological aspects of addictive behaviors and chemical abuse. Consideration of a variety of treatment programs offered in community agencies. Prerequisites: None. Cross-References: SWU130

BHS151 - Communication Skills in Counseling I
LEC  3 Credits  3 Periods
Development of communication skills important in establishing and maintaining effective helping relationships. Emphasis on rapport building, effective listening skills, appropriate feedback and the helping process. Prerequisites: BHS105 with a grade of “C” or better.

BHS156 - Supervised Practice I
LEC + LAB  3 Credits  15 Periods
Familiarization with social service agencies through conducting intake interviews, observing agency practices, and attending staff meetings. Prerequisites: BHS115, BHS130, and BHS151, and departmental approval.

BHS168 - Hospice Volunteer Training
LEC  2 Credits  2 Periods
Exploration of hospice care and related medical, social, emotional and spiritual concepts for the helping professional working with patients and their families. Prerequisites: None

BHS178 - Peer Training for Behavioral Health Paraprofessionals
LEC  3 Credits  3 Periods
Role exploration and expectations of the behavioral health paraprofessional. Confidentiality, communication, attending skills and developing rapport with persons with psychiatric illnesses. Workplace responsibilities, ethics, and boundaries. Mental health recovery, psychosocial rehabilitation and best practices in the treatment of psychiatric disorders. Client management and interventions to include crises intervention, coordination of care, and psychopharmacology, and clinical documentation. Prerequisites: None

BHS204 - Counseling in Multicultural Setting
LEC  3 Credits  3 Periods
Values, perceptions, attitudes, behaviors emphasizing intercultural communication patterns. Techniques for establishing rapport and interaction methodologies in a multicultural context. Competencies, strategies, and treatment modalities necessary for the paraprofessional working successfully with the multicultural clients. Prerequisites: BHS101, BHS151, or departmental approval.

BHS205 – Therapeutic Intervention Models
LEC  3 Credits  3 Periods
Familiarization with at least five models of therapeutic intervention. Defines the key concepts, therapeutic process, techniques and procedures of each model. Prerequisites: ASD102 BHS105 or permission of Department or Division.

BHS215 - Group Process
LEC  3 Credits  3 Periods
Evaluate and demonstrate the methods and techniques for influencing change in group settings. Prerequisites: BHS151 or departmental approval.

BHS260 - Case Report Writing
LEC  1 Credit  1 Period
Terminology, technical forms and techniques of observation necessary to create and maintain records. Prerequisites: BHS151 or departmental approval.

BHS263 - Applied Case Report Writing
LEC  1 Credit  1 Period
Application of observation and documentation techniques necessary to maintain clinical records in a variety of community based behavioral health settings. Application of legal issues to case report writing. Prerequisites: BHS260

BHS264 – Understanding Trauma
LEC  3 Credits  3 Periods
Introduction to trauma in children and adults and its impact on human development, mental health, personality, and overall
wellness. Overview of major screening tools for assessing and the major treatment modalities available for treating trauma. Prerequisites: (Grade of C or better in RDG091 or eligibility for CRE101 as indicated by appropriate reading placement test score) and (grade of C or better in ENG091 or eligibility for ENG101 as indicated by appropriate writing placement test score).

BHS265 - Violence & Abuse Matters
LEC  2 Credits  2 Periods
Exploration of topics relative to the development of helping professionals involved with perpetrators and individuals directly affected by traumatic or continuous physical or emotional violence and abuse. Prerequisites: None.

BHS266 - Violence & Abuse Counseling
LEC  3 Credits  3 Periods
Techniques, strategies, and treatment modalities necessary for the helping professional working with the victims and perpetrators of violence and abuse. Prerequisites: BHS105 or department approval. Co-requisite: BHS265

BHS267 - Introduction to Play Therapy
LEC  3 Credits  3 Periods
Exploration and application of therapeutic play techniques and strategies for the helping professional working with children. Prerequisites: (BHS105 and BHS151) or department approval.

BHS268 - Grief and Bereavement Issues
LEC  2 Credits  2 Periods
Exploration of topics related to the development of helping professionals involved with loss, bereavement, and grief work. Prerequisites: None.

BHS269 - Grief Counseling Techniques
LEC  3 Credits  3 Periods
Techniques, strategies, and treatment modalities necessary for the helping professional working with the bereaved and others affected by traumatic loss. Prerequisites: BHS168 or BHS268 or permission of department.

BHS270 - Introduction to Dance and Movement Therapy
LEC  3 Credits  3 Periods
A lively course focused on basic techniques used in expressive arts and body-based therapies. The course incorporates Tools for integrating body, mind, and spirit in a creative dance and movement format. Prerequisites: PSY101 and BHS105.

BHS272 - Managing Difficult Children
LEC  3 Credits  3 Periods
Strategies for training and reinforcing positive interaction with children. Covers behavior management strategies and techniques for oppositional, defiant and explosive children. Prerequisite: PSY240 or permission of Department or Division.

BHS278 - Recovery Coaching
LEC  3 Credits  3 Periods
Recovery based mental health treatment plans and processes. Recovery based concepts, barriers, principles, practices, and environments. Organizational support, expectations, and activities related to mental health issues and recovery in the work setting. Planning techniques, learning styles, participation methods, and problem behavior due to mental health issues in the workplace. Prerequisites: BHS105

BHS281 - Introduction to Art Therapy
LEC  3 Credits  3 Periods
Exploration of the process, dynamics and objectives of the therapeutic art experience. Emphasis on Art Therapy from both the psychological and artistic perspectives. Highlights topics in the history, theory and practice of Art Therapy. Prerequisites: BHS105 or departmental approval.

BHS285 - Facilitating Art Therapy Groups
LEC  3 Credits  3 Periods
Emphasis on facilitating art therapy groups in a variety of settings using visual art as a medium. Process, dynamics, and objectives of group work and the therapeutic art process. Prerequisites: BHS215 and BHS281

BHS290 - Child and Family Advocacy
LEC  3 Credits  3 Periods
Define and clarify the role of advocacy in relation to multiple systems affecting children and their families. Emphasis on identifying appropriate systems, community resources, wrap around theory and navigation skills in a variety of children's systems to facilitate family support and needs. Prerequisite: BHS105

BIOLOGY (BIO)

BIO100 - Biology Concepts
LEC  4 Credits  3 Periods
LAB  0 Credits  3 Periods
Introducer course covering basic principles and concepts of biology. Methods of scientific inquiry and behavior of matter and energy in biological systems are explored. Prerequisites: None. Course Notes: Field trips may be required at students’ expense. General Education Designation: Natural Sciences (Quantitative) - [SQ]

BIO101 - Introduction to Human Genetics for Non-Majors
LEC  4 Credits  3 Periods
LAB  0 Credits  3 Periods
Study of inheritance in humans, at the organismal, cellular and molecular levels. Includes exploration of gene expression, isolation and manipulation of DNA, Mendelian genetics, pedigree analysis, as well as chromosomal abnormalities and genetic diseases. Prerequisites: None. General Education Designation: Natural Sciences (Quantitative) [SQ]

BIO105 - Environmental Biology
LEC  4 Credits  3 Periods
LAB  0 Credit  3 Periods
Fundamentals of ecology and their relevance to human impact on natural ecosystems. Field trips may be required at
students’ expense. Prerequisites: None. General Education Designation: Natural Sciences (Quantitative) - [SQ]

BIO106 - Biotechnology & Society I
LEC  4 Credits  3 Periods
Introduction to biotechnology and its impact on society. Covers applications, limitations, benefits, risks, and legal and moral issues associated with biotechnology. Prerequisites: None

BIO107 - Introduction to Biotechnology
LEC  4 Credits  3 Periods
LAB  0 Credits  3 Periods
Introduction to biotechnology and its global impact on society. Covers applications, laboratory techniques, limitations and the international economic benefits, risks, and legal and moral issues associated with biotechnology. Prerequisites: None. General Education Designation: Natural Sciences (Quantitative) - [SQ]

BIO109 - Natural History of the Southwest
LEC  4 Credits  3 Periods
LAB  0 Credits  3 Periods
Study of the common plants and animals of the Southwest including their distribution, adaptation, behavior, and ecology. Introduction to basic field and laboratory techniques used in the study of natural history. Specific field problems presented dealing with plant and animal analysis and ecological interrelationships. Prerequisites: None. General Education Designation: Natural Sciences (General) - [SG]

BIO156 - Introductory Biology for Allied Health
LEC  4 Credits  3 Periods
LAB  0 Credit  3 Periods
An introductory biology course for allied health majors with an emphasis on humans. Topics include fundamental concepts of cell biology, histology, microbiology, and genetics. Prerequisites: Grade of “C” or better in RDG091 or higher or eligibility for CRE101 as indicated by appropriate reading placement test score. One year high school or one semester of college-level chemistry is strongly recommended. General Education Designation: Natural Sciences (Quantitative) - [SQ]

BIO160 - Introduction to Human Anatomy and Physiology
LEC  4 Credits  3 Periods
LAB  0 Credit  3 Periods
Principles of scientific method. Structural organization, homeostasis and control mechanisms of the body. Specific chemical concepts. Structure and function of the major systems of the body. Prerequisites: None. General Education Designation: Natural Sciences (General) - [SG]

BIO174 – Biosafety
LEC  1 Credit   1 Period
General laboratory safety, hazardous chemical use and disposal, biohazardous material use and disposal, biosafety procedures, and radiation safety. Prerequisites: None Cross-references: ABS174

BIO175 - Research Methods in Biology
LEC & LAB  1 Credit(s)  2 Periods
Fundamentals of planning and conducting biological experiments, including ones that simultaneously vary multiple experimental variables. Subsequent analysis, interpretation, and reporting of results. Prerequisites: None. BIO156 or BIO181 recommended.

BIO181 - General Biology (Majors) I
  BIO1181
LEC  4 Credits  3 Periods
LAB  0 Credit  3 Periods
The study and principles of structure and function of organisms at the molecular and cellular levels. A detailed exploration of the chemistry of life, the cell, and genetics. Prerequisites: Grade of “C” or better in RDG091 or higher or eligibility for CRE101 as indicated by appropriate reading placement test score. One year of high school or one semester of college-level biology and chemistry is strongly recommended. General Education Designation: Natural Sciences (Quantitative) - [SQ]

BIO182 - General Biology (Majors) II
  BIO1182
LEC  4 Credits  3 Periods
LAB  0 Credit  3 Periods
The study and principles of structure and function of living things at cellular, organismic, and higher levels of organization. A detailed exploration of the mechanisms of evolution, biological diversity, biology of organisms, and ecology. Prerequisites: A grade of C or better in BIO181. General Education Designation: Natural Sciences (Quantitative) - [SQ]

BIO201 - Human Anatomy and Physiology I
  BIO2201
LEC  4 Credits  3 Periods
LAB  0 Credit  3 Periods
Study of structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Prerequisites: (A grade of “C” or better in BIO156 or BIO156XT or one year of high school biology) and a grade of “C” or better in RDG091 or higher or eligibility for CRE101 as indicated by reading placement test score. CHM130 or higher or one year of high school chemistry suggested but not required. General Education Designation: Natural Sciences (General) - [SG]

BIO202 - Human Anatomy and Physiology II
  BIO2202
LEC  4 Credits  3 Periods
LAB  0 Credit  3 Periods
Continuation of structure and function of the human body. Topics include endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems; and fluid and electrolyte balance. Prerequisites: A grade of “C” or better in BIO201. General Education Designation: Natural Sciences (General) - [SG]

BIO205 - Microbiology
BIO2205
LEC 4 Credits 3 Periods
LAB 0 Credit 3 Periods
Study of microorganisms and their relationship to health, ecology, and related fields. Prerequisites: (A grade of "C" or better in BIO156 or BIO156XT or BIO181 or BIO181XT or one year of high school biology) and a grade of "C" or better in RDG091 or higher or eligibility for CRE101 as indicated by reading placement test score. CHM130 or higher or one year of high school chemistry suggested but not required. General Education Designation: Natural Sciences (General) - [SG]

BIO211AA - Biotechnology Seminar – Biomedical Applications
LEC 1 Credit 1 Period
Special topics in biotechnology with an emphasis on current issues not covered in other life science courses. Prerequisites: None. Course Notes: BIO211AA may be repeated for a total of two (2) credit hours

BIO211AD - Biotechnology Seminar - Ethical and Moral Issues
LEC 1 Credit 1 Period
Special topics in biotechnology with an emphasis on current issues not covered in other life science courses. Prerequisites: BIO211AC or permission of instructor.

BIO215 - Biotechnology Internship
LEC 3 Credits 3 Periods
Internship experience in a biotechnology laboratory. Setting, achieving, and evaluating goals for hands-on learning experience in a biotechnology laboratory. Development of skills and knowledge needed to work in a biotechnology laboratory. Prerequisites: (BIO208 or BIO209 or BIO212AA or BIO212BA or BIO213 completed within the last year) and permission of Program Director. Course Notes: BIO215 requires 240 clock hours in the laboratory setting. BIO 215 may be repeated for a total of six (6) credit hours.

BIO298AC - Special Projects
LEC + LAB 3 Credits 3 Periods
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or instructor.

BIO210 - Computer Usage and Applications
LEC + LAB 3 Credits 4 Periods
Introduction to business and personal computer operations and usage. Software applications for analyzing and solving business problems including word processing, spreadsheet, database, and presentation graphics. Prerequisites: None. General Education Designation: Computer/Statistics/Quantitative Applications - [CS]

BPC104AD - Using Excel: Level I
LEC .5 Credits .5 Periods
Use of Excel to create, edit, save and print worksheets. Prerequisites: None.

BPC104BD - Using Excel: Level II
LEC .5 Credits .5 Periods
Use of Excel to enhance worksheets to include graphing and formatting data, using complex formula and function expressions to build and analyze data, and special print options to output worksheets and graphs. Prerequisites: BPC104AD or permission of instructor.

BPC110 - Computer Usage and Applications
LEC + LAB 3 Credits 4 Periods
Introduction to business and personal computer operations and usage. Software applications for analyzing and solving business problems including word processing, spreadsheet, database, and presentation graphics. Prerequisites: None. General Education Designation: Computer/Statistics/Quantitative Applications - [CS]

BPC111AA - Computer Keyboarding I
LEC + LAB 1 Credit 1.7 Periods
Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols. Prerequisites: None. Cross-References: OAS111A

BPC128 - Introduction to Desktop Publishing
LEC + LAB 1 Credit 2 Periods
Presents basic concepts of commercially prepared software used to do desktop publishing. Incorporates a combination of narrative and pictorial/graphic creation and presentation, including set up, text entry, graphic generation, text and graphic merging, and other computer-based functions. Prerequisites: None.

BPC130DK - Beginning Word
LEC 1 Credit 2 Periods
Using Word for Windows to create, edit, and print documents. Prerequisites: Ability to keyboard a minimum of 20 wpm or permission of instructor. Cross-Reference: OAS130DK

BPC170 - Computer Maintenance: A+ Exam Prep Level I
LEC + LAB 3 Credits 4 Periods
Explore technical aspects of personal computers, including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis placed on proper usage of tools, safety procedures, and professionalism. Helps prepare students for the CompTIA A+ examinations. Prerequisites: CIS105 or permission of Instructor.

BPC270 - Computer Maintenance: A+ Exam Prep Level II
LEC + LAB 3 Credits 4 Periods
Explore advanced technical aspects of maintaining and servicing computers. Emphasis placed on installation, maintenance, mobile devices, security, troubleshooting, and resolving various computer problems. Helps prepare students...
for the CompTIA A+ examinations. Prerequisites: BPC170 with grade of C or better, or permission of Instructor.

**CHILD/FAMILY STUDIES (CFS)**

**CFS101AR – Learning With Toys**
LEC 1 Credit 1 Period
Use of creative imagination with toys to enable the child alone or with others to explore the world. Includes evaluating proper use of toys and appropriate developmental skills. Prerequisites: None

**CFS116 - Discipline and Guidance**
LEC 3 Credits 3 Periods
Age appropriate principles for disciplining and guiding young children's behavior in child care settings, including interpersonal and environmental strategies. Observational opportunities provided. Prerequisites: None.

**CFS157 - Marriage and Family Life**
LEC 3 Credits 3 Periods
Study of marriage and the family as a social system, including models of family analysis, intra- and interpersonal relations, and cross-cultural and historical patterns. Prerequisites: None.

**CFS163 – Family Child Care: Introduction to Business Management**
LEC 3 Credits 3 Periods
Emphasis on small business management and effective policies and procedures for family child care providers. Licensing, legal, and regulatory issues in a home setting are examined. Prerequisites: None.

**CFS164 – Family Child Care: Curriculum and Environment**
LEC 3 Credits 3 Periods
Family child care planning for multi-age groupings of children through age eight. Role of the environment as well as various curriculum programs will be explored and evaluated. Exploration of culturally rich, inclusive and child-centered environment in his/her own child care setting. Issues of professionalism, family partnerships, observation, guidance, and health/safety practices are examined. Prerequisites: None.

**CFS176 - Child Development**
LEC 3 Credits 3 Periods
Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues. Prerequisites: None. Cross-Reference: ECH176 General Education Designation: Social and Behavioral Sciences - [SB]

**CFS178 - Survey of Early Childhood Education**
LEC 3 Credits 3 Periods
Orientation to basic concepts of day care and nursery programs. History and philosophy of child care services including state regulations governing those services. Observation opportunities provided. Prerequisites: None.

**CFS179 – Child Care: A Multifaceted Career**
LEC 1 Credit 1 Period
Overview of the child care field. Focus on enhancing children's self esteem, providing for children's nutritional needs, and developing adequate safety and sanitation practices. Prerequisites: None

**CFS194AB - Early Childhood Program Management: Human Relations**
LEC 1 Credit 1 Period
Basic human relations in early childhood organizations and the influence of the individual's personal needs on the overall needs and objectives of the organization. Prerequisites: None.

**CFS206 - Child and Family Organizations: Management and Administration**
LEC 3 Credits 3 Periods
Examination of management and administration of community-based child and family organizations within the context of organizational behaviors. Focus on attributes of effective organizations: the impact of organizational culture and learning, work-place diversity and employee motivation. Prerequisites: None.

**CFS207 - Organization and Community Leadership in Child and Family Organizations**
LEC 3 Credits 3 Periods
Examination of organization and community leadership as it applies to the management and administration of community-based child and family services organizations. Provides overview of leadership styles and function. Prerequisites: None.

**CFS208 - Child and Family Organizations: Fiscal Management and Grant Writing**
LEC 3 Credits 3 Periods
Examination of fiscal accountability and resource development as it applies to the management and administration of community-based child and family social service organizations. Provides overview of grant development processes beginning with research into governmental and private funding sources through fiscal and grant audit processes. Includes budget development, risk management, and cost control issues. Prerequisites: None.

**CFS212 - Creative Activities for the Young Child**
LEC 3 Credits 3 Periods
Children’s development in play, creativity and the arts. Focus on learning environment for creative expression. Field experiences with children in groups required. Prerequisites: CFS/ECH176 or permission of instructor.

**CFS235 - Developing Child: Theory into Practice, Prenatal - Age 8**
LEC 3 Credits 3 Periods
Understanding and working with young children, birth through age 8. Analysis of young children's physical, social, emotional, cognitive and linguistic development within their
home, school, and cultural contexts. Typical and atypical development. Emphasis on observations and planning curriculum based on theories, research, and child-specific data. Prerequisites: None. General Education Designation: Social and Behavioral Sciences - [SB]

**CFS242 - Curriculum Planning for Diversity**
LEC  3 Credits  3 Periods
Practical early childhood classroom applications for a diverse population, including integration of cultures, generations, genders, and races into the classroom, facilitation of second language acquisition, and practical teaching strategies which are also developmentally appropriate. Prerequisites: CFS/ECH176. General Education Designation: Cultural Diversity - [C]

**CFS269 - Child Care Seminar**
LEC  1 Credit  1 Period
Emphasizes the blend of job-related activities including career exploration, employment procedures, human relations, and on-the-job issues. May be repeated for a total of three (3) credit hours. Prerequisites: Departmental approval. Cross-References: ECH269

**CFS271 – Arranging the Environment**
LEC  1 Credits  1 Period
Exploration of the influence of the environment on the behavior of young children. Indoor and outdoor spaces considered and analysis of environments practiced. Prerequisites: None. Cross-References: ECH271

**CFS273 – Math for the Young Child**
LEC  1 Credits  1 Period
Methods and techniques for encouraging the beginnings of mathematical/logical thought with young children. Focus upon the theory of Jean Piaget. Prerequisites: None. Cross-References: ECH273

**CFS275 – Literacy Development and the Young Child**
LEC  1 Credit  1 Period
Literacy from birth through the early childhood years. Focus on developmentally appropriate ways to encourage speaking, listening, writing, and reading in the home and classroom. Prerequisites: None. Cross-References: ECH275

**CFS278 – Early Childhood Education**
LEC  3 Credits  3 Periods
Early childhood education with emphasis on philosophy and curriculum in the preschool years. Observation and participation in school programs required. Prerequisites: CFS176 ECH176, or permission of instructor.

**CFS282 - Mainstreaming the Young Child with a Disability**
LEC  1 Credit  1 Period
An exploration of the educational, social, and behavioral issues and concerns involved in the successful integration of children with disabilities into typical preschool classes. Includes discussion of practical concerns such as adaptation of environment and accessing existing resources in the community. Prerequisites: None.

**CFS283 - Multicultural Early Child Education**
LEC  1 Credit  1 Period
Practical early childhood classroom applications for a diverse ethnic population, including integration of multi-cultures into the classroom, facilitation of second language acquisition, and practical teaching strategies which are also developmentally appropriate. Prerequisites: CFS/ECH176.

**CFS284AA - Early Childhood Teaching Internship**
LEC + LAB 2 Credits  2 Periods
Work experience in child care centers. 80 hours of designated work per credit. Maximum of 6 credits allowed. Prerequisites: CFS/ECH176 and permission of Department or Division. Co-requisites: CFS/ECH269. Cross-References: ECH284AA

**CFS285AA - Family School Interaction: Preschool**
LEC  1 Credit  1 Period
Interaction among parents, teachers and the preschool. Emphasis on methods used cooperatively by parents and preschool teachers to provide for education and developmental needs. Prerequisites: CFS/ECH176 or CFS278 or permission of instructor.

**CFS290AA - Child Abuse: Identification and Reporting in Child Care Settings**
LEC  1 Credit  1 Period
Identification, recording, and reporting by child care providers of sexual abuse, physical abuse, or neglect of young children. Prerequisites: None.

**CFS296WA-WC - Cooperative Education**
LAB  1-3 Credit  5-15 Periods
Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student’s academic or career goals (student’s present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student’s major or career interest or with permission of the instructor.

**CHEMISTRY (CHM)**

**CHM107 - Chemistry and Society**
LEC  3 Credits  3 Periods
A survey of chemistry and its impact on the environment. Completion of CHM107LL required to meet the Natural Science requirement. Prerequisites: None. [CHM107 and CHM107LL must be taken as block to meet AGEC value] General Education Designation: Natural Sciences (Quantitative) - [SQ]

**CHM107LL - Chemistry and Society Laboratory**
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit(s)</th>
<th>Periods</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM130</td>
<td>Fundamental Chemistry</td>
<td>3</td>
<td>3</td>
<td>Laboratory experience in support of CHM107. Prerequisites or Co-requisites: CHM107. General Education Designation: Natural Sciences (Quantitative) - <a href="#">SQ</a></td>
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<tr>
<td>CHM130LL</td>
<td>Fundamental Chemistry Laboratory</td>
<td>1</td>
<td>3</td>
<td>Laboratory experience in support of CHM130. Prerequisites or Co-requisites: A grade of “C” or better in CHM130. General Education Designation: Natural Sciences (Quantitative) - <a href="#">SQ</a> in combination with CHM130</td>
</tr>
<tr>
<td>CHM151</td>
<td>General Chemistry I</td>
<td>3</td>
<td>3</td>
<td>Detailed study of principles of chemistry for science majors and students in pre-professional curricula. Prerequisites: (CHM130 and CHM130LL), or (one year of high school chemistry with a grade of C or better taken within the last five years), and completion of intermediate algebra or equivalent. Completion of all prerequisites within the last two years is recommended. Course Note: Students may receive credit for only one of the following: CHM150 or CHM151. [CHM151 and CHM151LL must be taken as block to meet AGEC value] General Education Designation: Natural Sciences (Quantitative) - <a href="#">SQ</a> in combination with CHM151LL</td>
</tr>
<tr>
<td>CHM151LL</td>
<td>General Chemistry I Laboratory</td>
<td>1</td>
<td>3</td>
<td>Laboratory experience in support of CHM 151. Prerequisites: CHM 130LL, or permission of instructor. Prerequisites or Co requisites: CHM150 or CHM151. General Education Designation: Natural Sciences (Quantitative) - <a href="#">SQ</a> in combination with CHM150 or CHM151</td>
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<tr>
<td>CHM152</td>
<td>General Chemistry II</td>
<td>3</td>
<td>3</td>
<td>A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, electrochemistry, and other selected topics. Prerequisites: A grade of “C” or better in [(CHM150 or CHM151), or CHM150AA, or CHM151LL]. Completion of prerequisites within the last two years recommended. Course Notes: Completion of CHM152LL required to meet the Natural Science requirement. Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA. General Education Designation: Natural Sciences (Quantitative) - <a href="#">SQ</a> Arizona Shared Unique Number SUN# CHM1152</td>
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<tr>
<td>CHM154</td>
<td>General Chemistry II with Qualitative Analysis</td>
<td>3</td>
<td>3</td>
<td>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. Course Notes: Completion of CHM154LL required to meet the Natural Science requirement. Prerequisites: A grade of “C” or better in CHM 152. General Education Designation: Natural Sciences (Quantitative) - <a href="#">SQ</a> in combination with CHM152. Arizona Shared Unique Number SUN# CHM1152</td>
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<td>CHM154LL</td>
<td>General Chemistry II with Qualitative Laboratory</td>
<td>2</td>
<td>6</td>
<td>Laboratory experience in support of CHM 154. Includes qualitative analysis. Prerequisites or Corequisites: A grade of “C” or better in CHM154. General Education Designation: Natural Sciences (Quantitative) - <a href="#">SQ</a> in combination with: CHM154</td>
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<tr>
<td>CHM220</td>
<td>Analytical Chemistry</td>
<td>3</td>
<td>3</td>
<td>Principles and methods of chemical analysis. Prerequisites: CHM152 and CHM152LL, or CHM154 and CHM154LL.</td>
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<tr>
<td>CHM220LL</td>
<td>Analytical Chemistry Laboratory</td>
<td>2</td>
<td>6</td>
<td>Laboratory experience in support of CHM220. Prerequisites: CHM152LL, or CHM154LL, or equivalent. Prerequisites or Corequisites: CHM220.</td>
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<tr>
<td>CHM230</td>
<td>Fundamental Organic Chemistry</td>
<td>3</td>
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</tbody>
</table>
Chemistry of representative groups of organic compounds, emphasizing biological applications. Prerequisites: (CHM130 and CHM130LL), or (CHM150 or CHM151 and CHM151LL).

Completion of (CHM130 and CHM130LL) or (CHM150 or CHM151 and CHM151LL) within the last two years recommended. Course Note: CHM230 course content is designed to meet the needs of students in such areas as agriculture, home economics, nursing, pre-physician assistant, and physical education among others. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM230LL

CHM230LL - Fundamental Organic Chemistry Laboratory
LEC 3 Credits 3 Periods
Laboratory experience in support of CHM230. Prerequisites: CHM130LL, or CHM151LL, or equivalent. Prerequisites: CHM130LL or CHM151LL or equivalent or Corequisites: CHM230. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM230 Arizona Shared Unique Number SUN# 2230

CHM235 - General Organic Chemistry I
LEC 3 Credits 3 Periods
Rigorous introduction to chemistry of carbon-containing compounds. Reaction mechanisms and recent methods of synthesis emphasized. Prerequisites: A grade of “C” or better in (CHM152 and CHM152LL), or (CHM154 and CHM154LL). Completion of prerequisites within the last two years recommended. Arizona Shared Unique Number SUN# 2235

CHM235LL - General Organic Chemistry I Laboratory
LAB 1 Credit 4 Periods
Laboratory experience in support of CHM235. Prerequisites or Co-requisites: A grade of “C” or better in CHM235. Completion of prerequisites within the last two years recommended. Arizona Shared Unique Number SUN# 2235

CHM236 - General Organic Chemistry IIA
LEC 3 Credits 3 Periods
Study of chemistry of carbon-containing compounds continued. Structural determination and additional reaction mechanisms and modern methods of synthesis emphasized. Prerequisites: A grade of “C” or better in CHM235 and CHM235LL. Completion of prerequisites within the last two years recommended. Arizona Shared Unique Number SUN# 2236

CHM236LL - General Organic Chemistry IIA Laboratory
LAB 1 Credit 4 Periods
Laboratory experience in support of CHM236. Prerequisites: A grade of “C” or better in CHM236. Completion of prerequisites within the last years recommended. Arizona Shared Unique Number SUN# 2236

CHM238 - General Organic Chemistry IIB
LEC 3 Credits 3 Periods
Alternate to CHM236. Study of chemistry of carbon containing compounds continued. Structural determination and additional reaction mechanisms and modern methods of synthesis emphasized. Recommended for chemistry, chemical engineering and mining engineering majors. Prerequisites: CHM235 and CHM235LL.

CHM238LL - General Organic Chemistry IIB Laboratory
LAB 2 Credits 6 Periods
Laboratory experience in support of CHM238. Prerequisites:CHM235LL or equivalent. Prerequisites or Corequisites: CHM238.

CHM260 - Fundamental Biochemistry
LEC 3 Credits 3 Periods
Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates and lipids; the utilization and synthesis of these materials by living systems and the relationship of the processes to energy production and utilization. Designed for students in agriculture, dental hygiene, home economics, nursing, and physical therapy. Prerequisites: A grade of “C” or better in (CHM230 and CHM230LL), or (CHM235 and CHM235LL). Completion of prerequisites within the last two years recommended.

CHM260LL - Fundamental Biochemistry Laboratory
LAB 1 Credit 3 Periods
Laboratory experience in support of CHM260. Prerequisites: A grade of “C” or better in CHM230. Completion of prerequisites within last two years recommended.

COMPUTER INFORMATION SYSTEMS (CIS)
CIS105 - Survey of Computer Information Systems
LEC + LAB 3 Credits 4 Periods
Overview of computer technology, concepts, terminology, and the role of computers in business and society. Discussion of social and ethical issues related to computers. Use of word processing, spreadsheet, database, and presentation software. Includes uses of application software and the Internet for efficient and effective problem solving. Exploration of relevant emerging technologies. Prerequisites: None. General Education Designation: Computer/Statistics/Quantitative Applications - [CS]

CIS1120 - Introduction to Computer Science
LEC 3 Credits 3 Periods
Overview of computer science. Concepts, terminology, and applications. Prerequisites: None. General Education Designation: Computer/Statistics/Quantitative Applications - [CS]

CIS113DE - Microsoft Word: Word Processing
LEC 3 Credits 4 Periods
Using word processing software to create, name and manage files, edit text, format, apply themes and styles, create and modify tables, apply desktop publishing features, and print a variety of types of documents. Prerequisites: None.

CIS114AE - Excel: Level I
LEC + LAB 1 Credits 2 Periods
Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, and projections. Prerequisites: None.

CIS114DE - Excel Spreadsheet
LEC + LAB 3 Credits 5 Periods
Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, projections, macro programming, database searching, extraction, linking, statistics, and matrix manipulation. Production of graphs and reports. Project design using multiple, integrated spreadsheets. Prerequisites: None.

CIS117AM - Database Management: Microsoft Access – Level I
LEC + LAB 1 Credit 2 Periods
Introduction to the basic elements of a current version of the Microsoft Access database management program, for casual and beginning users. Prerequisites: None.

CIS117BM - Database Management: Microsoft Access – Level II
LEC + LAB 1 Credit 2 Periods
Exploration of additional components of the Microsoft Access database management program. Prerequisites: CIS117AM or permission of Instructor.

CIS117DM - Microsoft Access: Database Management
LEC + LAB 3 Credits 5 Periods
Introduction to the basic elements, exploration of additional components and common database management problems related to the Microsoft Access program. Prerequisites: None.

CIS118AB - Powerpoint Level I
LEC + LAB 1 Credit 2 Periods
Use of PowerPoint software to produce professional-quality presentation visuals. Prerequisites: None.

CIS119DO – Introduction to Oracle: SQL
LEC + LAB 3 Credits 4 Periods
Use of Oracle tools and methodologies to fulfill real-world business information requirements. Hands-on exercises for designing, creating, and maintaining database structures to store, retrieve, update, and display data in a relational database using the SQL programming language. Creating and maintaining database objects. Advanced retrieval techniques. Prerequisites: CIS105 or permission of instructor.

CIS120AF - Computer Graphics: Adobe Photoshop: Level I
LEC + LAB 1 Credit 2 Periods
Provides students with the capability to use Adobe Photoshop graphics software on a computer. Basic foundation course in the use of electronic techniques to select, manipulate, and edit images, for graphic design and image correction. Prerequisites: None.

CIS120AJ - Introduction to Digital Photo Editing
LEC + LAB 1 Credit 2 Periods
Introduction to digital photography and image editing. Digital photo editing use of electronic techniques to select, manipulate, and edit images. Prerequisites: None.

CIS120AK - Introduction to Digital Video Editing
LEC + LAB 1 Credit 1 Period
Introduction to digital video editing provides basic video import, export, and editing functions. Prerequisites: None.

CIS120BF – Computer Graphics: Adobe Photoshop: Level II
LEC + LAB 1 Credit 1 Period
Provides students with the capability to use Adobe Photoshop graphics software on a computer. Includes working with masks, channels and layers, and combining raster and vector graphics. Prerequisites: CIS120AF

CIS120CF – Computer Graphics: Adobe Photoshop: Level III
LEC + LAB 1 Credit 1 Period
Provides students with the capability to use Adobe Photoshop graphics software on a computer. Includes color printing, color management, creation of graphics for the Web. Prerequisites: CIS120AF

CIS120DA – Introduction to Digital Video Editing: Adobe Premiere
LEC + LAB 3 Credits 4 Periods
Foundations of video import, export, and editing. Includes parts and function of a video camera, preproduction and production, incorporating photographs, titles, graphics, animation and audio, capturing, editing, rendering and outputting digital video. Helps students prepare for the Adobe Certifications related to Adobe Premiere. Prerequisites: None.

CIS120DB - Computer Graphics: Adobe Illustrator
LEC + LAB 3 Credits 4 Periods
Provides students with the capability to use Adobe Illustrator graphics software on a computer. Basic foundation course in the use of electronic techniques to create, manipulate, and edit images, text, abstract art, graphics design, color graphics and business charts; determine file formats appropriate for web and print; utilize tools to optimize graphics and create a PDF file. Prerequisites: None.

CIS120DC – Adobe Flash Level I: Digital Animation
LEC + LAB 3 Credits 4 Periods
Provides students with the ability to use Flash graphics software on microcomputers. Covers basic animation
techniques used in the creation, manipulation, and editing of Flash animation graphics. Prerequisites: None.

CIS120DF - Adobe Photoshop Level I: Digital Imaging  
LEC + LAB 3 Credits 4 Periods  
Focuses on entry-level skill expectations for digital imaging using Adobe Photoshop. Helps students prepare for the Adobe Certifications related to Photoshop. Prerequisites: None.

CIS120DG – Fireworks: Web Graphics  
LEC + LAB 3 Credits 4 Periods  
Use of graphics software to create and edit vector and bitmap (raster) graphics. Creation and manipulation of paths and special effects. Covers slices, buttons, pop-up menus, navigation bars, and animations for use in web sites. Prerequisites: None.

CIS120DH - Microsoft Graphics: Microsoft Visio  
LEC + LAB 3 Credits 4 Periods  
Use of graphics software to create and edit drawings with predefined shapes and templates. Addition and manipulation of images, stencils, layers, and pages to drawings. Creation of new shapes, stencils, templates, styles, and colors. Publishing and exportation of drawings. Prerequisites: None.

CIS120DK – Introduction to Digital Video Editing  
LEC + LAB 3 Credits 4 Periods  
Introduction to digital video editing comprises of a foundation for video import, export, and editing functions. Includes parts and function of a video camera, preproduction and production, incorporating photographs, titles, graphics, animation and audio, capturing, editing, rendering and outputting digital video. Prerequisites: None.

CIS120DL - Digital Video Compositing: After Effects  
LEC + LAB 3 Credits 4 Periods  
Includes creating visual effects for video projects. Techniques and methodologies used to create shots for big budget special effects will be explored. Topics such as color and light matching, keying, motion tracking, rotoscoping and working with film will be discussed. Prerequisites: None.

CIS120DO – Adobe Audition: Audio Editing  
LEC + LAB 3 Credits 4 Periods  
Introduction to editing audio files in a multitrack editing environment using Adobe Audition. Includes the import of files in a variety of formats that were generated using other software and how to export files. Prerequisites: None.

CIS120DP – Adobe Acrobat Pro: Portable Document Format (PDF) Files  
LEC + LAB 3 Credits 4 Periods  
Introduction to creating PDF (Portable Document Format) files using Adobe Acrobat for web viewing and printing. Addresses creation of interactive PDF documents including security settings, navigation links, and form fields. Prerequisites: None.

CIS121AB - Microsoft Command Line Operations  
LEC + LAB 1 Credit 2 Periods  
Use of the Microsoft command line interface: basic concepts, internal and external commands, subdirectories, and editor. Prerequisites: None.

CIS121AE - Windows Operating System: Level I  
LEC + LAB 1 Credit 2 Periods  
Specific topics include Windows basics, navigating and customizing the desktop, maintaining hardware and software, improving performance, configurations, securing your computer, taskbar, organizing, searching and managing folders and files, installing and uninstalling applications, Internet Explorer fine tuning, security, and searching, including advanced search techniques, keyboard shortcuts, and current topics. Prerequisites: None.

CIS121AH – Microsoft PowerShell/Command Line Operations  
Day-to-day command line administration tasks of Microsoft Windows. PowerShell used to create scripts to administer Microsoft windows environment. Prerequisites: None. MST150 suggested but not required.

CIS121AI – Mac Operating System  
Specific topics include getting started with Mac OS; working with disks, folders, and files; installing and using applications; setting system preferences; printing, faxing, and scanning; getting and living online; using iLife; sharing a Mac with other users; creating a home network; and maintaining the Mac. Prerequisites: None.

CIS122AB–OS/400 Operating System  
LEC + LAB 1 Credit 2 Periods  
The use of the OS/400 operating system on the AS/400 computer; basic concepts, commands, file organization and management Prerequisites: None.

CIS122AA - UNIX Operating System: Level I  
LEC + LAB 1 Credit 2 Periods  
Use of the UNIX operating system: system components, built-in commands, files and directories, editors, and UNIX Shell and command lines. Prerequisites: None.

CIS122AL - Linux Operating System I  
LEC + LAB 1 Credit 2 Periods  
Introduction to the Linux Operating system. Develop knowledge and skills required to install, configure a Linux-based workstation including basic network functions. Prerequisites: None.

CIS122BA – UNIX Operating System: Level II  
LEC 1 Credit 1 Period  
Installation, configuration, and maintenance of the UNIX operating system Prerequisites: CIS126AA.

CIS122BL – Linux Operating System II  
LEC + LAB 1 Credit 1 Period  
Introduction to the Linux Operating system. Develop
knowledge and skills required to configure a Linux-based workstation including basic printing functions. Learn basic command line and Graphical User Interface (GUI) desktop environment utilities and applications. Prerequisites: CIS126AL or permission of Instructor.

CIS126CA - UNIX Operating System: Level III
LEC  1 Credit   1 Period
Create login scripts and batch files, and maintain system communications. Prerequisites: CIS126BA.

CIS126CL – Linux Operating System III
LEC  1 Credit   1 Period
Introduction to the Linux operating system. Develop knowledge and skills required to install and configure applications, and to troubleshoot a Linux-based workstation including basic network functions. Learn basic command line and Graphical User Interface (GUI) desktop environment utilities and applications. Prerequisites: CIS126BL or Permission of Instructor.

CIS126DA - UNIX Operating System
LEC + LAB  3 Credits  4 Periods
Use of a UNIX operating system including system components, built-in commands, files, and directories, editors, and UNIX shell and command lines. Installation, configuration, and maintenance of a UNIX operating system. Create scripts and batch files, and maintain system communications. Prerequisites: None.

CIS126DL - Linux Operating System
LEC +LAB  3 Credits  4 Periods
Introduction to the Linux Operating system. Develop knowledge and skills required to install, configure and troubleshoot a Linux-based workstation including basic network functions. Learn basic command line and Graphical User Interface (GUI) desktop environment utilities and applications. Fundamental abilities to achieve the entry-level industry certification covered. Prerequisites: None.

CIS131AA - Doing Business on the Internet
LEC  1 Credit   1 Period
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.

CIS132 – HTMS/CSS
LEC + LAB  3 Credits  4 Periods
Overview of foundational HyperText Markup Language (HTML) and Cascading Style Sheets (CSS) coding. Create web pages and sites that adhere to web standards and best practices using current web coding standards. Prerequisites: None.

CIS133AA - Internet/World Wide Web: Level I-A
LEC + LAB  1 Credit  2 Periods
Overview of the Internet and its resources. Hands-on experience with various Internet communication tools. Prerequisites: None.

CIS133BA – Internet/Web Development Level I-B
LEC + LAB  1 Credit  1 Period
Exploration of additional Internet resources. Hands-on experience with a variety of resource discovery and information retrieval tools as well as enhancement of Web pages. Prerequisites: CIS133AA

CIS133CA – Internet/Web Developmen Level I-C
LEC + LAB  1 Credit   1 Period
Web site development using enhancement codes. Includes frames, style sheets and javascript as well as design principles and typography. Prerequisites: CIS133BA

CIS133DA - Internet/Web Development Level I
LEC + LAB  3 Credits  4 Periods
Overview of the Internet/WWW and its resources. Hands-on experience with various Internet/WWW communication, resource discovery, and information retrieval tools. Web page development also included. Prerequisites: None.

CIS136 – Content Management Systems: WordPress
Overview of WordPress Content Management System. Includes hands-on design and creation of web pages and blogs for the World Wide Web. Designed to cover best practices for web site/blog creation. Prerequisites: None.

CIS138DA - Desktop Design and Publishing Using Adobe InDesign
LEC + LAB  3 Credits  4 Periods
Use of Adobe InDesign to compose and print textual and graphic materials of high quality. Includes word processing of copy, use of graphics programs, layout of design elements, printing alternatives, and file formats. Prerequisites: CIS105, or BPC110, or permission of Instructor.

CIS150 - Programming Fundamentals
LEC + LAB  3 Credits  4 Periods
Structured program design and logic tools. Use of computer problems to demonstrate and teach concepts using appropriate programming language. Prerequisites: CIS105, or permission of instructor.

CIS150AB - Object-Oriented Programming Fundamentals
LEC + LAB  3 Credits  4 Periods
Structured and Object-Oriented design and logic tools. Use of computer problems to demonstrate and teach concepts using an appropriate programming language. Prerequisites: CIS105 or permission of instructor.

CIS159 - Visual Basic Programming I
LEC + LAB  3 Credits  4 Periods
Use of the Visual Basic programming language to solve problems using suitable examples from business or other
disciplines. Prerequisites: CIS105 or permission of instructor.

CIS162 - C Programming I
LEC + LAB 3 Credits  4 Periods
Beginning C Programming. Includes features needed to construct programs, functions, pointers, input and output options, data types, structures, and unions, and disk file operations. Prerequisites: CIS105, or permission of instructor.

CIS162AB - C++: Level I
LEC + LAB 3 Credits  4 Periods
Introduction to C++ programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: CIS105, or permission of instructor. General Education Designation: Computer/Statistics/Quantitative Applications - [CS]

CIS167 - C#: Level I
LEC + LAB 3 Credits  4 Periods
Introduction to C# programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: CIS105, or permission of instructor. General Education Designation: Computer/Statistics/Quantitative Applications - [CS]

CIS169 - Introduction to Visual Basic for Applications
LEC + LAB 3 Credits  4 Periods
Introduction to Visual Basic for Applications (VBA) using Microsoft Office environments. Includes Dynamic Data manipulation and animation. Prerequisites: CIS133CA, or CIS133DA, or permission of Instructor.

CIS165 - Introduction to IOS Application Development
LEC + LAB 3 Credits  4 Periods
Introduction to iOS device programming utilizing the XCode application, and the programming languages ObjectiveC and/or Swift, utilizing various iOS frameworks. Understand iOS hardware and feature basics. Go through entire design process to final product delivery. Prerequisites: CIS150++, or CIS159, or CIS162++, or CIS163AA, or permission of Instructor.

CIS165DA - Android Mobile Device Programming
LEC + LAB 3 Credits  4 Periods
Beginning with an overview of Android features, this class explores the required software tools and programming techniques for developing Android device applications from creating the user interface, working with activities, intents and views, to using databases, providing data persistence, accessing device features and services, to debugging and publishing applications. Prerequisites: CIS163AA, or permission of Instructor.

CIS165DB - C#/VB.NET: Windows 8 App Development
LEC + LAB 3 Credits  4 Periods
Building upon desktop application development with Visual Studio using VB.NET or C# languages, developing apps for Windows 8 utilizes Extensible Application Markup Language (XAML) for interface design. Windows 8 utilizes UI design standards that are unique from previous versions. Develop apps for Windows 8 smartphones and tablets that utilize touch input methods, translate into different resolutions, states, and orientations, and can tap into mobile features such as location and acceleration sensors. Includes working with external data and packaging for Windows Store distribution. Prerequisites: CIS159 or CIS162AD or permission of instructor.

CIS166 - Web Scripting/Programming
LEC + LAB 3 Credits  4 Periods
Software development for Web sites, including client side script and Common Gateway Interface (CGI) scripting. Covers Web-based transaction processing and use of databases in conjunction with the Web. Includes security issues. Prerequisites: CIS133CA or CIS133DA or permission of Instructor.

CIS166AA – Introduction to JavaScript
LEC + LAB 3 Credits  4 Periods
Introduction to basic JavaScript programming concepts including syntax. Covers Hypertext Markup Language (HTML), programming logic and debugging, as well as forms manipulation and animation. Prerequisites: CIS133CA, or CIS133DA, or permission of Instructor.

CIS166AB - C++: Level II
LEC + LAB 3 Credits  4 Periods
Introduction to C++ programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: CIS105, or permission of instructor. General Education Designation: Computer/Statistics/Quantitative Applications - [CS]

CIS167 - C#: Level II
LEC + LAB 3 Credits  4 Periods
Introduction to C# programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: CIS105, or permission of instructor. General Education Designation: Computer/Statistics/Quantitative Applications - [CS]

CIS168 - C Programming II
LEC + LAB 3 Credits  4 Periods
Introduction to C programming. Includes features needed to construct Java Applets, Java Applications, control structures, methods, arrays, character and string manipulation, graphics, and object-oriented programming. Prerequisites: CIS105, or permission of instructor. General Education Designation: Computer/Statistics/Quantitative Applications - [CS]

CIS161 - Mainframe Z/OS - Level I
LEC + LAB 3 Credits  4 Periods
Introduction to Mainframe Z/OS operating system and the role of mainframes in today’s business world. Tools, utilities and processes for developing a simple program to run on Z/OS. Prerequisites: CIS159 or permission of instructor.

CIS161 - IBM Mainframe Z OS - Level I
LEC + LAB 3 Credits  4 Periods
Fundamental knowledge and skills to begin using the basic functions of a mainframe computer. User interfaces of the z/OS mainframe operating system and the role of mainframes in today's business world. Tools, utilities and processes for developing a simple program to run on z/OS. Prerequisites: CIS159 or permission of instructor.

CIS190 - Introduction to Local Area Networks
LEC + LAB 3 Credits  4 Periods
Overview of local area networks. Emphasis on the elements of a local area network, current issues and products, and use of a local area network. Includes terminology, hardware and software components, connectivity, resource monitoring and sharing, electronic mail and messaging, and security issues. Prerequisites: CIS105, or permission of instructor.
CIS191 - Novell NetWare System Administration
LEC + LAB 3 Credits 4 Periods
Knowledge and skills required to administer or manage a Novell NetWare local area network operating system. Level I, II, and III network management tasks. Prerequisites: CIS105, or permission of instructor.

CIS191 - Advanced Microsoft Word: Word Processing
LEC 3 Credits 4 Periods
Using advanced word processing software features to perform tasks such as mail merge, collaboration, web pages, math functions, macros, photo enhancements, graphics, tables, forms and manage long documents. Prerequisites: CIS113DE or (CIS113AE and CIS113BE and CIS113CE) or permission of Instructor.

CIS197 - Vmware ESXI Server Enterprise
LEC + LAB 3 Credits 4 Periods
Introduction to vSphere and VMware ESXI 5.5 server in the enterprise. Covers many aspects of virtualization for VMware ESXI server administration. Designed to develop knowledge and skills required to install, configure and troubleshoot a VMware ESXI Server (vSphere) including basic network functions. Provides basic command line and vCenter (formerly Management User Interface (MUI)) using VMware vSphere Client. Prerequisites: (CIS126DL or MST150 (any module)) and (CIS190 or MST140 or CNT140) or permission of Instructor.

CIS213DE - Advanced Excel Spreadsheet: Level II
LEC + LAB 3 Credits 5 Periods
Advanced Excel spreadsheet features including formatting techniques, macros and Visual Basic for applications. Templates, built-in functions and lists as well as analysis tools including Pivot Tables and Goal Seek covered. Import and export data, workgroup collaboration and Internet features of Excel emphasized. Prerequisites: CIS114DE or permission of instructor.

CIS214DE - Advanced Excel Spreadsheet: Level II
LEC + LAB 3 Credits 5 Periods
Advanced Excel spreadsheet features including formatting techniques, macros and Visual Basic for applications. Templates, built-in functions and lists as well as analysis tools including Pivot Tables and Goal Seek covered. Import and export data, workgroup collaboration and Internet features of Excel emphasized. Prerequisites: CIS114DE or permission of instructor.

CIS217AM - Advanced Microsoft Access: Database Management
LEC + LAB 3 Credits 4 Periods
Basic database concepts including database design, primary and secondary key selection and relationships between tables. Queries, sub forms, macros, events, Visual Basic modules and Access Internet features also covered. Prerequisites: (CIS117DM or CIS117CM).

CIS220DC - Flash: Advanced Animation and ActionScript
LEC + LAB 3 Credits 4 Periods
Advanced Flash programming, action scripting, tweening, advanced buttons and user input, movie clips, using dynamic sound and text, managing information flow, Object-Oriented Programming concepts in relation to Flash. Prerequisites: CIS120DC or permission of Instructor.

CIS222DF – Adobe Photoshop Level II: Advanced Digital Imaging
LEC 3 Credits 4 Periods
Goes beyond the basic use of palettes, selections, layers, menus, and tool options, and focuses on using Photoshop software's advanced features to manipulate and correct digital and digitally produced images. Prerequisites: (CIS120AF, CIS120BF and CIS120CF) or CIS120DF, or permission of instructor.

CIS224 – Project Management Microsoft Project for Windows
LEC + LAB 3 Credits 4 Periods
Introduction to project management concepts while working with MS Project to solve complex project management networks, including creating Gantt and PERT charts, tracking project progress, planning for restrictions, and integrating MS Project with other software packages such as Excel, Word, Powerpoint, and cc Mail. Prerequisites: None.

CIS225 - Business Systems Analysis and Design
LEC + LAB 3 Credits 4 Periods
Investigation, analysis, design, implementation and evaluation of business computer systems. Prerequisites: Any programming language or permission of instructor.

CIS225AB - Object-Oriented Analysis and Design
LEC + LAB 3 Credits 4 Periods
Methodologies and notations for fundamental object oriented analysis and design including use cases, objects, classes, stereotypes, and relationships. Object oriented iterative process for system development. A continuous application development exercise for applying the analysis and design concepts. Prerequisites: Any program language, or permission of instructor.

CIS226AL Internet/Intranet Server Administration-Linuz
LEC + LAB 3 Credits 4 Periods
Configuration and management of internet/intranet services, including the Apache web server, Simple Mail Transfer Protocol servers (SMTP), Structured Query Language (SQL server), File Transfer Protocol (FTP), Network Time Protocol (NTP), and other network services used in home and small business environments. Covers basic security configuration and testing. Prerequisites: CIS126 (any module) or permission of Instructor.

CIS233DA - Internet/Web Development Level II
LEC + LAB 3 Credits 4 Periods
Design and create pages on the World Wide Web with a variety of markup languages, programming languages, scripts, and multimedia. Hands-on experience authoring and preparing...
sophisticated web documents. Exploration of best practices/ issues for web design and publishing and careers in web development and e-commerce. Prerequisites: CIS133CA or CIS133DA or permission of instructor.

CIS233DC - Internet Web Development: Dreamweaver
LEC + LAB  3 Credits  4 Periods
Design and development of comprehensive and interactive websites using Dreamweaver. Hands-on experience designing, developing, testing, and publishing web documents that contain various client-side web technologies. Assists in preparing students for the Adobe Certifications related to Adobe Dreamweaver. Prerequisites: CIS132, or CIS133CA, or CIS133DA, or permission of instructor.

CIS235 - e-Commerce
LEC + LAB  3 Credits  4 Periods
Introduction to Electronic Commerce on the Internet. Designing an electronic storefront including web page content and development, e-commerce site marketing, advertisement, legal and security considerations, Credit card and other debt transaction covered. Also includes current issues in e-commerce. Prerequisites: CIS133CA, or CIS133DA, or permission of instructor.

CIS236 - Web-Based Teaching and Learning I
LEC + LAB  2 Credits  3 Periods
Experience using a web-based learning environment from an online student’s perspective. Use communication tools, submit assignments, use evaluation tools, create homepages, and navigate online-learning environment. Introduction to basics of online pedagogy. Hands-on experience with a web-based learning environment. Prerequisites: CIS133CA or CIS133DA, or permission of instructor.

CIS238 - Advanced UNIX System Administration
LEC + LAB  3 Credits  4 Periods
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 - Linux System Administration
LEC + LAB  3 Credits  4 Periods
Managing Linux Operating Systems including sophisticated manipulation of file structures, backup systems, printing processes, troubleshooting, user account management, hard disk maintenance and configuration, process monitoring and prioritizing, kernel customization, and system resource control. Preparation for industry certifications such as the SAIR/GNU LCP and LCA certificates, CompTIA's Linux+, RHCT, RHCE, and LPIC. Prerequisites: CIS126AL, CIS126BL and CIS126CL; or CIS126DL or permission of instructor.

CIS239DL - Linux Shell Scripting
LEC + LAB  3 Credits  4 Periods
Linux Shell Scripting syntax and methods including the automation of system tasks as well as interpreted user-level programming. Course includes the Linux Borne Again Shell (BASH) as well as a variety of industry competitors. Prerequisites: CIS238DL or permission of instructor.

CIS240DL - Linux Network Administration
LEC + LAB  3 Credits  4 Periods
In depth networking based on Linux servers and the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol suite. Integrating Linux servers and workstations into a network environment with multi-platform network operating systems including a variety of open-standard and proprietary protocols. Preparation for industry certifications such as the SAIR/GNU LCP and LCA certificates, CompTIA's Linux+, RHCT, RHCE, and LPIC. Prerequisites: CIS126AL, CIS126BL and CIS126CL; or CIS126DL or permission of instructor.

CIS241DL – Apache Web Server Administration (Linux/Unix)
LEC + LAB  3 Credits  4 Periods
Knowledge and skills to install configure and securely manage a Linux/Unix Apache web server in an Open Source Environment. Securely incorporates Common Gateway Interface (CGI) handlers, Secure Socket Layer (SSL), dynamic content, and customization of the Apache web server with add-in modules. Preparation for entry-level industry certification exams will be covered. Prerequisites: CIS226AA or CIS226AL or CIS238DL or permission of Instructor.

CIS243 - Internet/Web Development Level III
LEC + LAB  3 Credits  4 Periods
Development of interactive websites with graphics, video, and sound using advanced web design techniques and tools. Design theory for maximizing web readership, interactive and multimedia elements, speed and accessibility optimization, and intuitive user interfaces. Prerequisites: CIS233DA or permission of instructor.

CIS240DL – Linux Network Administration
LEC + LAB  3 Credits  4 Periods
In depth networking based on Linux servers and the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol suite. Integrating Linux servers and workstations into a network environment with multi-platform network operating systems including a variety of open-standard and proprietary protocols. Preparation for industry certifications such as the SAIR/GNU LCP and LCA certificates, CompTIA's Linux+, RHCT, RHCE, and LPIC. Prerequisites: CIS126AL, CIS126BL and CIS126CL; or CIS126DL or instructor approval.

CIS241DL – Apache Web Server Administration (Linux/Unix)
LEC + LAB  3 Credits  4 Periods
Knowledge and skills to install configure and securely manage a Linux/Unix Apache web server in an Open Source Environment. Securely incorporates Common Gateway Interface (CGI) handlers, Secure Socket Layer (SSL), dynamic content, and customization of the Apache web server with add-in modules. Preparation for entry-level industry certification exams will be covered. Prerequisites: CIS226AA, or CIS226AL, or CIS238DL, or permission of instructor.
CIS250 - Management of Information Systems  
LEC  3 Credits  4 Periods  
The study of business information systems and its management, communication, e-business strategies, emerging technologies, database concepts, and project management. Overview of systems analysis and design. Learn about the competitive and strategic uses of information systems and how they are transforming organizations and their management. Prerequisites: CIS105.

CIS259 - Visual Basic Programming II  
LEC  3 Credits  4 Periods  
Use of the Visual Basic programming language to identify and solve advanced problems using suitable examples from business or other disciplines. Prerequisites: CIS159 or permission of instructor.

CIS262AB - C++ : Level II  
LEC + LAB  3 Credits  4 Periods  
Advanced level C++ programming with emphasis on arrays, data management, dynamic memory allocation, object-oriented programming concepts, input/output operations, libraries, and debugging techniques. Includes overview of other advanced applications of C++. Prerequisites: CIS162AB or permission of instructor.

CIS262AD - C# Level II  
LEC + LAB  3 Credits  4 Periods  
Advanced C# programming with emphasis on data structures, dynamic memory allocation, object-oriented programming, user interfaces, and database processing. Overview of web applications, network programming, and reporting tools. Prerequisites: CIS162AD, or permission of instructor.

CIS263AA - Java Programming: Level II  
LEC + LAB  3 Credits  4 Periods  
Intermediate Java programming. Includes features needed to construct object-oriented programming, multithreading, multimedia, files, streams and data structure. Prerequisites: CIS163AA or permission of the instructor.

CIS270 - Essentials of Network and Information Security  
LEC + LAB  3 Credits  4 Periods  
Threats to security of information systems; responsibilities and basic tools for information security, including communication security, infrastructure security, organizational security and basic cryptography. Introduction to the language of network security and hardware, software and firmware components of an information security system for local, metropolitan, enterprise, and wide area networks. Helps prepare participants for the CompTIA Security+ exam and the GIAC Security Essentials Certificate (GSEC). Prerequisites: CNT150, or (MST150 or MST150 any module), or permission of instructor.

CIS271DL – Linux Security  
LEC + LAB  3 Credits  4 Periods  
Implementing in-depth security methods and techniques in a Linux-based network environment. Utilize programs, utilities and configuration techniques to provide user-level, file system, and network security. Gain knowledge in a variety of security cracking techniques and how to guard against them. In all aspects of security, the standard of practicing professional ethics seriously emphasized. Preparation for industry certifications such as the SAIR/GNU LCP and LCA certificates, CompTIA's Linux+, RHCT, RHCE, and LPIC. Prerequisites: CIS240DL or Permission of Instructor.

CIS276DA – MySQL Database  
LEC + LAB  3 Credits  4 Periods  
A broad overview of the MySQL database. Includes Structured Query Language (SQL) instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install MySQL, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies. Prerequisites: CIS105 or permission of Instructor.

CIS276DB – SQL Server Database  
LEC + LAB  3 Credits  4 Periods  
A broad overview of the Microsoft Structured Query Language (SQL) Server database. Includes SQL instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install SQL Server, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies. Prerequisites: CIS105 or permission of Instructor.

CIS296WA-WD - Cooperative Education  
LAB  1 Credits  5 Periods  
Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. Prerequisites: None. Co-requisites: 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.

CIS298 AA-AC - Special Projects  
LAB  1-3 Credits  1-3 Periods  
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: None.

CISCO NETWORKING TECHNOLOGY (CNT)  
CNT138 - CCNA Discovery - Networking for Home and Small Businesses
CNT140 - Cisco Networking Basics  
LEC + LAB  4 Credit  6 Periods  
Introduction to the computer networking field. Covers network terminology and protocols, local area networks (LAN), and wide area networks (WAN). Includes Open Systems Interconnection (OSI) models, cabling and wiring tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing, and network standards. Preparation for the Cisco Certified Network Associate examination. Prerequisites: None.

CNT140AA – Introduction to Networks  
LEC + LAB  4 Credits  6 Periods  
Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced. Students will build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Preparation for Cisco certification examination. Prerequisites: None.

CNT148 - CCNA Discovery - Working at a Small-to-Medium Business or Internet Service Provider  
LEC + LAB  3 Credits  5 Periods  
Prepares students as network technicians. Develops skills for computer and help desk technicians including soft skills. Provides overview of routing, remote access, addressing, and security. Provides familiarity with e-mail, web, and authenticated access servers. Presents network monitoring and basic troubleshooting skills in context. Prerequisites: CNT138.

CNT150 - Cisco Networking Router Technologies  
LEC + LAB  4 Credits  6 Periods  
Knowledge of skills to install, configure, customize, maintain and troubleshoot Cisco routers and components. Preparation for Cisco certification examination. Prerequisites: CNT140 or permission of instructor.

CNT150AA - Cisco Routing and Switching Essentials  
LEC + LAB  4 Credits  6 Periods  
Architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. Configuration and troubleshooting routers and switches and resolving common issues with RIPv1, RIPng, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Preparation for Cisco certification examination. Prerequisites: CNT140AA or permission of instructor.

CNT158 - CCNA Discovery - Introduction to Routing and Switching in the Enterprise  
LEC + LAB  4 Credits  6 Periods  
Familiarizes students with the equipment, applications and protocols installed in enterprise networks, with a focus on switched networks, Internet Protocol (IP) Telephony requirements, and security. Introduces advanced routing protocols such as Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol. Hands-on exercises include configuration, installation, and troubleshooting. Prerequisites: CNT148.

CNT160 - Cisco Switching Basics and Intermediate Routing  
LEC + LAB  3 Credits  4 Periods  
Advanced Internet Protocol (IP) addressing techniques, Variable Length Subnet Masking (VLSM), Intermediate routing protocols, Routing Internet Protocol version 2 (RIPv2), Single area Open Shortest Path First (OSPF), and Enhanced Interior Gateway Routing Protocol (EIGRP), Command Line Interface configuration of switches, Ethernet switching, Virtual Local Area Networks (VLAN), 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.

CNT160AA – Scaling Networks  
LEC + LAB  4 Credits  6 Periods  
Architecture, components, and operations of routers and switches in large and complex networks. Configuring routers and switches for advanced functionality. Configuring and troubleshooting routers and switches and resolving common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks. Developing the knowledge and skills needed to implement a WLAN in a small-to-medium network. Preparation for Cisco certification examination. Prerequisites: CNT150AA or permission of Instructor.

CNT168 - CCNA Discovery - Designing and Supporting Computer Networks  
LEC + LAB  4 Credits  6 Periods  
Networking design and customer support including gathering requirements, designing basic networks, establishing proof-of-concept, and performing project management tasks. Lifecycle services, including upgrades, competitive analyses, and system integration, in the context of pre-sale support. Prerequisites: CNT158.

CNT170 - Cisco Wide Area Networks (WAN) Technologies  
LEC + LAB  3 Credits  4 Periods  
Advanced Internet Protocol (IP) addressing techniques including Network Address Translation (NAT), Port Address Translation (PAT) and Dynamic Host Control Protocol (DHCP). Also covers Wide Area Network (WAN) technology and terminology, Point-to-Point Protocol (PPP), Integrated Services Digital Network (ISDN), Dial on Demand Routing (DDR), Frame Relay, and network management. Preparation for Cisco Certified Network Associate
CNT170AA - Cisco – Connecting Networks
LEC + LAB 4 Credits 6 Periods
Wide Area Network (WAN) technologies and network services required by converged applications in a complex network. Criteria selection of network devices and WAN technologies to meet network requirements. Configuring and troubleshooting network devices, and resolving common issues with data link protocols issues, and developing the knowledge and skills needed to implement Internet Protocol Security (IPSec) and Virtual Private Network (VPN) operations. Preparation for Cisco certification examination. Prerequisites: CNT160 or permission of instructor.

CNT171 - CCNA Exam Prep
LEC + LAB 1 Credit 2 Periods
Preparation for renewal of CCNA certification by reviewing the OSI model and industry standards including network topologies, IP addressing, subnet masks, access control list, basic network design and cable installation. Practice the skills to configure, customize, maintain and troubleshoot Cisco routers and switches for Local Area Networks (LANs) and Wide Area Networks (WANs) using Cisco IOS command set. Review any new material introduced since the last CCNA exam version. Prerequisites: CNT170 or CNT170AA or CCNA certification or permission of instructor. Course Note: CNT171 can be offered on credit (P) No credit (Z) basis. Standard grading available according to procedures outlined in college catalog.

CNT175 - Cisco Certified Network Associate Security
LEC + LAB 0 Credit 6 Periods
Associate-level knowledge and skills required to secure Cisco networks. Development of a security infrastructure, identification of threats and vulnerabilities to networks. Mitigation of security threats. Core security technologies. Installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Competency in the technologies that Cisco uses in its security structure. Prerequisites: CNT170 or CNT170AA or Certified Cisco Networking Associate (CCNA) certification or permission of Instructor.

CNT181 - Cisco Securing IOS Networks
LEC + LAB 4 Credits 5 Periods
Applications of Cisco Networking technologies in designing and implementing security solutions to reduce risk of revenue loss and vulnerability. Hands-on experience and skills in security policy design and management, security technologies, products and solutions, secure router installation, configuration, and maintenance, AAA (Authentication, Authorization, and Accounting), and VPN (Virtual Private Network) implementation using routers. Preparation for the Securing Cisco IOS Networks (SECUR) exam, which applies toward the Cisco Certified Security Professional (CCSP), Virtual Private Network (VPN) Specialist, Intrusion Detection System (IDS) Specialist and the Firewall Specialist certifications. Prerequisites: CNT170 or permission of instructor.

CNT185 - Cisco Network Security
LEC + LAB 4 Credits 5 Periods
Applications of Cisco Networking technologies in designing and implementing security solutions to reduce risk of revenue loss and vulnerability. Hands-on experience and skills in security policy design and management, security technologies, products and solutions, firewall and secure router design, installation, configuration and maintenance, AAA (Authentication, Authorization, and Accounting) and VPN (Virtual Private Network) implementation using firewalls and routers. Preparation for the MCNS (Managing Cisco Network Security) and CSPFA (Cisco Secure PIX Firewall Advanced) exams toward certification as a Cisco Firewall Specialist. Exams also apply to CCSP (Cisco Certified Security Professional) certification. Prerequisites: CNT170, or permission of instructor.

CNT200 - CCNP ROUTE: Implementing Cisco IP Routing
LEC + LAB 4 Credits 6 Periods
Development of knowledge and skills needed to manage Internet Protocol (IP) traffic and access, understand scalable internetworks configure advanced routing protocols Border Gateway Protocol [BGP], Enhanced Interior Gateway Routing Protocol [EIGRP], Open Shortest Path First [OSPF], as well as Internet Protocol (IPv6), and configuration of secure routing solutions to support branch offices and mobile workers. Comprehensive labs emphasize hands-on learning and practice to reinforce configuration skills. Prerequisites: CNT170 or CCNA industry certification, or permission of Instructor. Corequisites: CNT220 Course Notes: Preparation for Cisco Certified Network Professional (CCNP) exam.

CNT202 - Cisco Secure Firewall Appliance Configuration
LEC + LAB 4 Credits 5 Periods
Applications of Cisco Networking technologies in designing and implementing security solutions to reduce risk of revenue loss and vulnerability. Hands-on experience and skills in security policy design and management, security technologies, products and solutions, secure firewall design, installation, configuration and maintenance, Authentication, Authorization, and Accounting (AAA), Failover, and Virtual Private Network (VPN) implementation using firewalls. Prerequisites: CNT170AA or permission of Instructor.

CNT205 - Cisco Certified Network Associate Security
LEC + LAB 4 Credits 6 Periods
Associate-level knowledge and skills required to secure Cisco networks. Development of a security infrastructure, identification of threats and vulnerabilities to networks. Mitigation of security threats. Core security technologies. Installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Competency in the technologies that Cisco uses in its security structure. Prerequisites: CNT170
Integrated Services (IntServ) and Best Effort. Implementation of QoS mechanisms. IP Quality of Service (QoS) requirements, IP QoS theory, design issues, and configuration of various QoS mechanisms. IP Quality of Service (QoS) requirements, conceptual models using Differentiated Services (DiffServ) and Best Effort. Implementation of IP QoS on Cisco IOS switch and router platforms.

Prerequisites: CNT170 or permission of instructor.

CNT248 - Cisco IP Telephony Troubleshooting
LEC + LAB 4 Credits  5 Periods
Knowledge of skills to install, configure, monitor and troubleshoot Cisco voice gateways and gatekeepers in an Enterprise network. Prerequisites: CNT244 or permission of instructor.

COMMUNICATION (COM)

COM100 - Introduction to Human Communication
LEC 3 Credits  3 Periods
Theory and practice of communication in public, small group, and interpersonal settings. Includes study of the speech communication process. Prerequisites: None. General Education Designation: Social and Behavioral Sciences - [SB]

COM100AA - Introduction to Human Communication Part I
LEC 1 Credit  1 Period
Theory and practice of communication skills in public, small group, and interpersonal settings. Includes study of the speech communication process. Prerequisites: None.

COM100AB - Introduction to Human Communication Part II
LEC 1 Credit  1 Period
Theory and practice of communication skills in public, small group, and interpersonal settings. Includes study of the speech communication process. Prerequisites: None.

COM100AC - Introduction to Human Communication Part III
LEC 1 Credit  1 Period
Theory and practice of communication skills in public, small group, and interpersonal settings. Includes study of the speech communication process. Prerequisites: None.

COM110 - Interpersonal Communication
LEC 3 Credits  3 Periods
Theory and practice of communication skills which affect day-to-day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships. Prerequisites: None. General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN# COM 1110

COM181 - Conflict Mediation
LEC 3 Credits  3 Periods
Develop communication skills necessary to conduct mediation in formal and informal settings. Applies principles and theories of message production and responding, listening, questioning, source and receiver factors, and emotion to conflict management communication. Emphasis on respecting diversity and empowering joint problem solving throughout. Prerequisites: None. Cross-Reference Course:
Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning. Prerequisites: None. Cross-Reference: AAA150

CRITICAL READING (CRE)

CRE101 - College Critical Reading
LEC 3 Credits 3 Periods
Apply critical inquiry skills to varied and challenging reading materials. Includes analysis, synthesis, and evaluation through at least two substantial writing and/or speaking tasks. Prerequisites: (A grade of “C” or better in ENG101 or ENG107) and (appropriate reading placement test score or a grade of “C” or better in RDG091 or RDG095 or RDG100 or RDG111 or RDG112 or RDG113 or permission of instructor). General Education Designation: Literacy and Critical Inquiry - [L]

CRE111 - Critical Reading for Business and Industry
LEC 3 Credits 3 Periods
Emphasis on reading skills required for success in business and technology. Includes interpretation of technical and professional materials with an emphasis on critical analysis and reading. Prerequisites: Reading Asset test score, or grade of “C” or better in RDG091, or permission of instructor.

CREATIVE WRITING (CRW)

CRW150 - Introduction to Creative Writing
LEC 3 Credits 3 Periods
Introduces the student to elements and techniques of creative writing in a variety of genres; teaches terminology and concepts needed for successful participation in writing workshops; facilitates writing practice and evaluation; offers individual guidance on the student’s development as a writer. Prerequisites: None.

COMPUTER SCIENCE (CSC)

CSC100 - Introduction to Computer Science (C++)
LEC + LAB 3 Credits 3 Periods
Concepts of problem solving, structured programming in C++, fundamental algorithms and techniques, and computer system concepts. Social and ethical responsibilities. Intended for majors other than Computer Science. Prerequisites: MAT120, or MAT121, or MAT122. General Education Designation: Computer/Statistics/Quantitative Applications - [CS]

CSC100AB – Introduction to Computer Science (C++)
LEC + LAB 4 Credits 4 Periods
Concepts of problem solving, structured programming in C++, fundamental algorithms and techniques, and computer system concepts. Social and ethical responsibilities. Intended for majors other than Computer Science. Prerequisites: MAT120 or MAT121 or MAT122.

CSC110 - Introduction to Computer Science - Java

CAREER PERSONAL DEVELOPMENT (CPD)

CPD125 - Employee Development: Problem Solving/Decision Making
LEC 1 Credit 1 Period
Development of decision-making skills as well as techniques for problem solving. Focus on values and value conflicts as related to decision-making. Also includes establishing short and long-term goals for personal and career development. Prerequisites: None.

CPD150 - Strategies for College Success
LEC 3 Credits 3 Periods
CAREER/WORK EXPERIENCE (CWE)
CWE198AA-AC - Career/Work Experience
LEC + LAB 1-3 Credits
Participation in a work experience, gaining on-the-job training, and/or exploring a career or field of choice. Helps students relate their education to the real work world. Resume writing and interviewing skills. Development of employability skills. Prerequisites: None.

DANCE HUMANITIES (DAH)
DAH100 - Introduction to Dance
LEC 3 Credits 3 Periods
Overview of the field of dance focusing on origins, historical development, and cultural characteristics of the various styles of dance. Prerequisites: None. General Education Designation: Global Awareness – [G]; Humanities and Fine Arts - [HU]

DANCE (DAN)
DAN102AA - Hip Hop I
LEC + LAB 1 Credit 3 Periods
Theory and practice of Hip Hop dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None. Course Note: DAN102AA may be repeated for credit.

DAN120AA World Dance: African Dance
LEC + LAB 1 Credit 3 Periods
Theory and practice of African dance. Development of movement quality and performance skills, individually or in a group setting. May include African, Caribbean or Afro-fusion dance. Prerequisites: None. Course Notes: DAN120AA may be repeated for credit.

DAN132 - Modern Dance I
LEC +LAB 1 Credit 3 Periods
Introduction to the theory and practice of modern dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None. Course Note: May be repeated for a total of two (2) credit hours.

DAN133 - Jazz Dance I
LEC +LAB 1 Credit 3 Periods
Introduction to the theory and practice of jazz dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None. Course Note: DAN133 may be repeated for credit.

DAN135 - Modern Dance II
LEC +LAB 1 Credit 3 Periods
Theory and practice of modern dance at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: DAN132 or permission of instructor. Course Notes: DAN135 may be repeated for credit.
DAN136 - Jazz Dance II  
LEC + LAB  1 Credit  3 Periods  
Theory and practice of jazz dance at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: DAN133 or permission of instructor. Course Notes: DAN136 may be repeated for credit.

DAN141 - Dance Workshop  
LEC + LAB  1 Credit  3 Periods  
An intensive experience in the process of choreography, performance, and production elements. Prerequisites: None. Course Notes: DAN141 may be repeated for credit.

DAN150 - Dance Performance II  
LEC + LAB  1 Credit  3 Periods  
Continued study of the process and practice of dance performance at a level II. Prerequisites: DAN150 or permission of instructor. Course Notes: DAN150 may be repeated for credit.

DAN155 - Dance Performance II  
LEC + LAB  1 Credit  3 Periods  
Continued study of the process and practice of dance performance at a level II. Prerequisites: DAN150 or permission of instructor. Course Notes: DAN155 may be repeated for credit.

DAN210 - Dance Production I  
LEC + LAB  1 Credit  3 Periods  
Introduction to the elements of light, sound, and scenery as they relate to the art of dance. Prerequisites: None.

DAN220 - Modern Dance III  
LEC + LAB  1 Credit  3 Periods  
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 - Jazz Dance III  
LEC + LAB  1 Credit  3 Periods  
Theory and practice of jazz dance at the beginning intermediate level. Development of movement quality and performance skills. Prerequisites: DAN136 or permission of instructor. Course Notes: DAN233 may be repeated for credit.

DAN235 - Modern Dance IV  
LEC + LAB  1 Credit  3 Periods  
Theory and practice of modern dance at the intermediate level. Development of movement quality and performance skills. Prerequisites: DAN232 or permission of instructor. Course Notes: DAN25 may be repeated for credit.

DAN236 - Jazz Dance IV  
LEC + LAB  1 Credit  3 Periods  
Theory and practice of jazz dance at the intermediate level. Development of movement quality and performance skills. Prerequisites: DAN233 or permission of instructor. Course Notes: DAN236 may be repeated for credit.

DAN250 - Dance Performance III  
LEC + LAB  1 Credit  3 Periods  
Continued study of the process and practice of dance performance at a level III. Prerequisites: DAN155 or permission of Instructor. Course Notes: DAN250 may be repeated for credit.

DAN264 - Choreography I  
LEC + LAB  3 Credits  3 Periods  
Study of basic dance choreography to include construction of a phrase, structure and form in a composition, and the basic elements of time, space and energy. Prerequisites: None.

DAN265 - Choreography II  
LEC  3 Credits  3 Periods  
Exploration of the craft of choreography at the intermediate level. Experimentation with the various approaches to contemporary choreography as established by 20th century artists. Prerequisites: DAN264.

ENGINEERING SCIENCE (ECE)  
ECE102 - Engineering Analysis Tools and Techniques  
LEC  2 Credits  4 Periods  
Learning culture of engineering, engineering use of computer tools, and computer modeling as applied to engineering analysis and design. Prerequisites: Two years of high school algebra or MAT122 or departmental approval. Co-requisites: MAT151 or MAT182 or MAT187.

ECE102AA  
LEC  2 Credits  2 Periods  
LAB  2 Credits  2 Periods  
Learning culture of engineering, engineering use of computer tools, and computer modeling as applied to engineering analysis and design. Prerequisites: Two years of high school algebra or MAT122 or departmental approval. Corequisites: MAT151 or MAT182 or MAT187.

ECE103 - Engineering Problem Solving and Design  
LEC  2 Credits  4 Periods  
Fundamentals of the design process: engineering modeling, communication, and problem-solving skills in a team environment. Emphasis on process-based improvements to the design process. Introduction to engineering as a profession. Prerequisites: ECE102 and (high school physics or PHY111).
ECE103AB – Engineering Problem Solving and Design  
LEC  2 Credits  2 Periods  
LAB  0 Credits  2 Periods  

EGR1102 – in combination with ECE102A  
Fundamentals of the design process: engineering modeling, communication and problem-solving skills in a team environment. Emphasis on process-based improvements to the design process. Introduction to engineering as a profession.  
Prerequisites: (ECE102 or ECE102AA) and (high school physics, or PHY111, or PHY111AA).  

ECE105 – MATLAB Programming  
LEC  1 Credit  1 Period  
Use MATLAB to solve engineering problems. An overview of programming, including arrays, structures, strings, functions, control flow, file management, data analysis, graphing, and performing calculations.  
Prerequisites: None.  

ECE201 - Introduction to Engineering Statics  
LEC  2 Credits  2 Periods  
LAB  0 Credit  1 Period  
Introduction to engineering statics, including force systems, resultants, equilibrium of particles and rigid bodies, introduction to centroids and centers of mass, area moments of inertia, distributed loading, and friction.  
Prerequisites: (ECE103 or ECE103AB), and (MAT230 or MAT231), and (PHY115 or PHY121).  
Co-requisites: MAT241.  

ECE211 - Engineering Mechanics-Statics  
LEC  3 Credits  3 Periods  
LAB  0 Credit  2 Periods  
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).  
Co-requisites: MAT241.  

ECE212 - Engineering Mechanics - Dynamics  
LEC  3 Credits  3 Periods  
LAB  0 Credits  2 Periods  
Kinematics and kinetics of particles, translating and rotating coordinate systems, rigid body kinematics, dynamics of systems of particles and rigid bodies, and energy and momentum principles.  
Prerequisites: ECE211 and MAT241.  

ECE214 - Engineering Mechanics  
LEC  4 Credits  4 Periods  
LAB  0 Credits  2 Periods  
Foundations of engineering mechanics, including force systems, resultants, equilibrium of particles and rigid bodies, centroids and centers of mass, area and mass moments of inertia, friction, internal forces in structures, kinematics and kinetics of particles, kinematics and kinetics of rigid bodies, energy and momentum principles.  
Prerequisites: (ECE103 or ECE103AB), (MAT230 or MAT231), and (PHY115 or PHY121).  
Co-requisites: MAT240 or MAT241.  

ECE294 – Special Topics in Engineering  
Exploration and investigation of a focused topic in engineering.  
Prerequisites: Permission of Instructor, or Department or Division Chair.  
Course Notes: ECE294 may be repeated for credit.  

ECE298AB - Special Projects  
LAB  2 Credits  2 Periods  
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.  
Prerequisites: Permission of Program Director or instructor.  

EARLY CHILDHOOD EDUCATION (ECH)  
ECH100 - Montessori 2.5-6 Overview  
LEC  3 Credits  3 Periods  
Montessori principles and activities needed to understand and teach the 2.5-6 year old in a Montessori classroom. Covers Montessori Philosophy, Practical Life, Sensorial, Mathematics, Language, Cultural Studies, Art, Music, Movement, Geography, History, and Science in the Montessori Early Childhood setting.  
Prerequisites: Permission of Instructor.  
Course Note: Instructors for ECH100 must have Montessori Early Childhood 2.5-6 Certification.  

ECH125 – Writing for Early Childhood Professionals  
LEC  1 Credit  1 Period  
Elements of effective written communication and use in the field of early childhood education. Practical experience using common classroom documents. Course surveys document purpose, readers needs, information organization, and clear expression of ideas.  
Prerequisites: None  

ECH128 Early Learning: Play and the Arts  
LEC  3 Credits  3 Periods  
Examines theory, research and practices relating to play and the creative arts in early childhood. Considers practical constraints and alternative perspectives.  
Prerequisites: None  

ECH182 – Enhancing Toddler Development  
LEC  1 Credit  1 Period  
Overview of the developmental needs of children from 15 through 30 months. Emphasis on the adult role in providing a safe, stimulating everyday environment where toddlers may explore, imitate and communicate with others.  
Prerequisites: None  

ECH269 – Child Care Seminar  
LEC  1 Credit  1 Period  
Emphasizes the blend of job-related activities including career exploration, employment procedures, human relations, and on-the-job issues.  
Prerequisites: Permission of Department or Division.  
Course Notes: ECH269 may be repeated for a total of three (3) credit hours.  
Cross-References: CFS269  

ECH270 – Observing Young Children
LEC  1 Credit  1 Period
Introduction to techniques of observing young children. Recording methods, interpretation and use of collected information including legal and ethical implications. Prerequisites: None

ECH272 – Science for the Young Child
LEC  1 Credit  1 Period
Methods and techniques for encouraging beginning scientific thinking among young children. Focus upon the theory of Jean Piaget. Prerequisites: None.

ECH273 – Math for the Young Child
LEC  1 Credit  1 Period
Methods and techniques for encouraging the beginnings of mathematical/logical thought with young children. Focus upon the theory of Jean Piaget. Prerequisites: None.

ECH282 – Discipline/Guidance of Child Groups
LEC  1 Credit  1 Period
Exploration of techniques for guiding children in groups with focus on individual child and adult needs for a disciplined environment. Prerequisites: None.

ECH284AA - Early Childhood Teaching Internship
LEC + LAB  2 Credits  2 Periods
Work experience in child care centers. 80 hours of designated work per Credit. Maximum of 6 Credits allowed. Prerequisites: CFS/ECH176 and permission of department. Co-requisites: CFS/ECH269. Cross-References: CFS284AA

ECH287 – Professional Development in Early Childhood Education
LEC  1 Credit  1 Period
Emerging professionalism within the field of early childhood education. Consideration of job responsibilities, rewards, ethics and current issues facing practitioners. Includes assessment and career planning. Prerequisites: None. Cross-References: CFS287

ECH296WA-WD - Cooperative Education
LAB  1 Credit  5 Periods
Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student’s academic or career goals (student’s present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student’s major or career interest or with permission of the instructor.

ECONOMICS (ECN)
ECN211 - Macroeconomic Principles
LEC  3 Credits  3 Periods
A descriptive analysis of the structure and functioning of the American economy. Emphasis on basic economic institutions and factors that determine national income and employment levels. Consideration given to the macroeconomic topics of national income, unemployment, inflation and monetary and fiscal policies. Prerequisites: None. General Education Designation: Social and Behavioral Sciences - [SB]

ECN212 - Microeconomic Principles
LEC  3 Credits  3 Periods
Microeconomic analysis including the theory of consumer choice, price determination, resource allocation and income distribution. Includes noncompetitive market structures such as monopoly and oligopoly; and the effects of government regulation. Prerequisites: None. General Education Designation: Social and Behavioral Sciences - [SB]

EDUCATION (EDU)
EDU101AA – Tutor Training and Practicum
LEC  1 Credits  1 Period
Tutor training with an opportunity to gain insights into instructional support services through a minimum of 30 hours of supervised on-site experience within an educational setting. Overview of the role and responsibilities of instructional tutors as well as tutoring techniques, with particular focus on reading and writing strategies. Prerequisites: None

EDU105 - Substitute Teacher Training
LEC + LAB  2 Credits  2 Periods
Survey of issues important to substitute teaching in Arizona. Discussion of certification, professional behavior, and classroom techniques. Prerequisites: None. Course Notes: EDU105 requires an approved field experience.

EDU220 – Introduction to Serving English Language Learners (ELL)
LEC  3 Credits  3 Periods
Rationale for and current educational and legal issues for serving English Language Learners (ELL). Comparison and evaluation of various types of language educational models including Structured English Immersion (SEI), English as a Second Language (ESL) and bilingual. Includes SEI, ESL, and bilingual strategies Course Notes:Approved school-based practicum is required. EDU220 incorporates the 45-clock hour curricular framework for provisional SEI endorsement through the Arizona Department of Education Prerequisites: None

EDU221 - Introduction to Education
LEC  3 Credits  3 Periods
Overview of the historical, political, economic, social, and philosophical factors that influence education and make it so complex. Opportunity for students to assess their interest and suitability for teaching. Prerequisites: None. Course Note: Requires minimum of 30 hours of field experience in elementary or secondary classroom environment. General Education Designation: Social and Behavioral Sciences - General Education Designation: Social and Behavioral
EDU222 - Introduction to the Exceptional Learner  
LEC  3 Credits  3 Periods  
Overview of the exceptional learner, one who differs from the average or normal, with emphasis on factors relating to current practices, identification, characteristics, and educational adaptations. Issues related to mildly disabled, severely disabled, emotionally and behaviorally disordered, intellectually disabled, and gifted students. Prerequisites: None. Course Notes: EDU222 requires an approved field experience. Prerequisites: None. Education Designation: Social and Behavioral Sciences - General Education Designation: Social and Behavioral Sciences - [SB]; Cultural Diversity – [C]

EDU230 - Cultural Diversity in Education  
LEC  3 Credits  3 Periods  
Examination of the relationship of cultural values to the formation of self-concept and learning styles. Examination of the role of prejudice, stereotyping and cultural incompatibilities in education. Emphasis on teacher preparation (preservice and/or inservice) to offer an equal educational opportunity to students of all cultural groups. Prerequisites: None. General Education Designation: Cultural Diversity – [C]

EDU236 – Classroom Relationships  
LEC  3 Credits  3 Periods  
Analysis of K-12 classroom interactions, classroom environment, and classroom management skills from a teacher’s point of view. Focus on classroom as a multidimensional environment in which principles of classroom design, communication, management, and resources determine effectiveness. Prerequisites: None. EDU221 suggested but not required. Course Notes: Requires a 20-hour field experience in a K-12 classroom.

EDU250 - Teaching and Learning in the Community College  
LEC  3 Credits  3 Periods  
The history, functions, organization and current issues in the community/junior college with emphasis on the Arizona community colleges. Includes focus on the design and practice of effective community college teaching and learning with special emphasis on the Maricopa County Community College District. Prerequisites: None.

EDU282AA - Service Learning Experience in Education Experience  
LEC  1 Credit  1 Period  
Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. Course Notes: EDU282AA may be repeated for a total of six (6) EDU282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours.

EDU283AA - Using Storytelling in Educational Settings  
LEC  1 Credit  1 Period  
The application of storytelling and storytelling activities in educational settings. Prerequisites: None. Cross-Reference:

EDU289 - Secondary Methods and Curriculum Development  
LEC  1 Credit  1 Period  
Overview and practical application of teaching methodology and curriculum development for secondary education teachers. Teaching strategies, curriculum design, lesson objectives, time management skills, teaching resources and student assessments covered. State Board of Education Professional Teaching Standards emphasized. Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program.

EDU291 - Children's Literature  
LEC  3 Credits  3 Periods  
Review of folk and modern literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children Prerequisites: None. Cross- References: ENH291 General Education Designation: Humanities and Fine Arts - [HU]

EDU292 - The Art of Storytelling  
LEC  3 Credits  3 Periods  
Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom. Prerequisites: None Cross-References: HUM292, STO292 General Education Designation: Humanities and Fine Arts - [HU]; Cultural Diversity - [C]

EDU294 - Multicultural Folktales  
LEC  3 Credits  3 Periods  
Study of multicultural folktales, exploring the impact of the oral tradition in American society and showing classroom applications. Prerequisites: None. Cross- References: ENH294, STO294. General Education Designation: Humanities and Fine Arts - [HU]; Cultural Diversity - [C]

EDU298AA - Special Projects  
LAB  1 Credit  1 Period  
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or instructor.

EARLY EDUCATION (EED)  
EED200 - Foundations of Early Childhood Education  
LEC  3 Credits  3 Periods  
Overview of early childhood education (birth to age eight) in American society, including current issues and responsibilities. Emphasis on issues of professionalism, ethics and program types. Opportunities for students to explore potential career paths. Prerequisites:
None. Course Note: EED200 requires a minimum of 30 hours of field experience in birth to age eight environments. General Education Designation: Social and Behavioral Sciences - [SB]

EED205 – The Developing Child: Prenatal to Age Eight
LEC 3 Credits 3 Periods
Examination of process of physical, social, emotional, cognitive, language, and literacy development of typical and atypical young children; prenatal through age eight. Includes practical application and fieldwork experience. Prerequisites: None General Education Designation: Social and Behavioral Sciences - [SB]

EED212 - Guidance, Management and the Environment
LEC 3 Credits 3 Periods
Principles for guiding young children in early care and education environments. Exploration of guidance, management, and how the environment impacts the lives of young children. Includes observation of classrooms of children ages birth to age eight. Prerequisites: None.

EED215 - Early Learning, Health, Safety, Nutrition and Fitness
LEC 3 Credits 3 Periods
Consideration of public health issues and safety procedures within early childhood settings, serving young children birth to age eight. Overview of nutritional needs and issues of physical fitness and well-being in young children. Includes field experiences. Prerequisites: None

EED220 - Child, Family, Community and Culture
LEC 3 Credits 3 Periods
Examines family, community and cultural influences on development of the young child (birth to age eight). Considers trends and threats to attachment, relationships and cultural identity. Includes social and emotional experiences and their impact on the developing brain. Prerequisites: None. General Education Designation: Cultural Diversity - [C]

EED222 - Intro to the Exceptional Young Child: Birth to Age Eight
LEC 3 Credits 3 Periods
Overview of the exceptional learner (birth to age eight), one who differs from the average or the norm, with emphasis on observation, techniques, characteristics, identification, types of programs, and work with families. Issues related to learning exceptionalities, sensory and communication disorders, social and emotional problems, physical and health related disorders, and giftedness. Includes field experience. Prerequisites: None. General Education Designation: Social and Behavioral Sciences - [SB]; Cultural Diversity - [C]

EED245 – Early Learning: Language Acquisition and Literacy Development
LEC 3 Credits 3 Periods
Overview of language acquisition and development, emergent literacy, early literacy development, and appropriate early experiences with books, reading, and writing for typical and atypical children birth to age eight. Emphasis placed on reading and writing readiness, methods to enhance literacy development, and strategies for selecting and using children's books. Prerequisites: None

EED255 – Portfolio Development and Writing for the Profession
LEC 3 Credits 3 Periods
Portfolio development, completion, and presentation. Self-assessment and educational short-term and long-term planning, professional development, writing and critical learning included. Prerequisites: Completion of twelve (12) credit hours of EED coursework and permission of Program Coordinator.

EED260 – Early Childhood Infant/Toddler Internship
LAB 1 Credit 1 Period
Work experience with infants and toddlers in early care and education settings. 80 hours of designated work per credit. Prerequisites: Permission of Department or Division. Course Notes: EED260 may be repeated for a total of six (6) credits.

EED261 - Early Childhood Preschool Internship
LAB 1 Credit 1 Period
Work experience with preschoolers in early care and education settings. 80 hours of designated work per credit. Prerequisites: Permission of department. Course Note: May be repeated for a total of six (6) credit hours.

EED278 - Early Learning: Curriculum and Instruction - Birth/Preschool
LEC 3 Credits 3 Periods
Considerations and evaluations of curriculum appropriate to the developmental characteristics of learners, birth through five years. Includes how early childhood standards, philosophies, and program settings relate to the teaching, learning, and assessment process. Includes field experience. Prerequisites: EED200.

EED280 - Standards, Observation & Assessment of Typical/Atypical Behaviors of Young Children Birth to Age Eight
LEC 3 Credits 3 Periods
Standards, observation, and assessment of typical and atypical behaviors, overview of standards, observation and assessment methodologies for typical and atypical young children (birth to age eight). Includes ethics, referral and reporting procedures, and collaboration with families and other professionals. Prerequisites: CFS/ECH176, or CFS235, or EED205.

ELECTRICAL ENGINEERING (EEE)
EEE202 - Circuits and Devices
LEC 5 Credits 4 Periods
Introduction to circuits and devices. Component models, transient analysis, steady state analysis, Laplace transform, and active and passive filter networks. Prerequisites: ECE103 or ECE103AB. Corequisites: (MAT276 or MAT277) and (PHY116 or PHY131).

ENGLISH (ENG)
ENG071 – Preparatory Academic Writing I
LEC 3 Credits 3 Periods
Emphasizes preparation for college level composition and related reading tasks with a focus on communicating through complete, grammatically correct writing, organized to communicate a central idea. Prerequisites: Appropriate writing placement test score or permission of Department or Division.

ENG081 – Preparatory Academic Writing II
LEC 3 Credits 3 Periods
Emphasizes preparation for college-level composition and related reading tasks with a focus on critical writing, reading, and thinking skills and processes. Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG071 or ESL077, or permission of Department or Division.

ENG091 – Preparatory Academic Writing III
LEC 3 Credits 3 Periods
Emphasizes preparation for first year composition with a focus on critical writing, reading, and thinking skills and processes at an increased level of academic complexity. Prerequisites: Appropriate English placement test score, or a grade of “C” or better in ENG091 or ESL087, or permission of Instructor.

ENG100AC - The Mechanics of Written English
LEC 1 Credit 1 Period
Review of the mechanics of written English, including punctuation, arbitrary marks and usages, capitalization, agreement, tense, and sentence patterns. Prerequisites: Appropriate English placement test score, or a grade of “C” or better in ENG091 or ESL097, or permission of Instructor.

ENG100AE - Composition Skills
LEC 1 Credit 1 Period
Developing generative and evaluative writing skills using selected software programs. Prerequisites: None.

ENG101 - First Year Composition
LEC ENG1101
3 Credits 3 Periods
Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 4,000 words in total. Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG091 or ESL097. General Education Designation: First-Year Composition - [FYC]

ENG102 - First Year Composition
LEC ENG1102
3 Credits 3 Periods
Emphasis on rhetoric and composition with a focus on persuasive, research-based writing and understanding writing as a process. Developing advanced college-level writing strategies through three or more writing projects comprising at least 4,000 words in total. Prerequisites: Grade of C or better in ENG101. General Education Designation: First-Year Composition - [FYC]

ENG107 - First-Year Composition for ESL
LEC 3 Credits 3 Periods
Equivalent of ENG 101 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total. Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG091 or ESL097. General Education Designation: First-Year Composition - [FYC]

ENG108 - First-Year Composition for ESL
LEC 3 Credits 3 Periods
Equivalent of ENG102 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on persuasive, research-based writing and understanding writing as a process. Developing advanced college-level writing strategies through three or more writing projects comprising at least 4,000 words in total. Prerequisites: Grade of C or better in ENG107. General Education Designation: First-Year Composition - [FYC]

ENG110 - First-Year Composition for ESL Language (ESL)
LEC 3 Credits 3 Periods
Equivalent of ENG101 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total. Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG091 or ESL097. General Education Designation: First-Year Composition - [FYC]

ENG111 - Technical and Professional Writing
LEC 3 Credits 3 Periods
Covers analyzing, planning, organizing, researching, and writing correspondence, reports, and presentations for specific work-related audiences. Includes integrating data and graphics into work-related documents and presentations. Prerequisites: ENG101 with a grade of C, or better, or permission of Instructor. General Education Designation: Literacy and Critical Inquiry - [L]

ENG210 - Creative Writing
LEC 3 Credits 3 Periods
Skills and techniques used in the production of marketable materials for contemporary publications that buy prose fiction, poetry, and expository articles. May be repeated for a total of six (6) Credit hours with departmental approval. Prerequisites: ENG102 with a grade of “C”, or better, or permission of department.

ENG218 - Writing About Literature
LEC 3 Credits 3 Periods
Advanced writing course requiring analytical and expository essays about fiction, poetry, and drama. For non-English majors. Prerequisites: ENG102. General Education Designation: Humanities and Fine Arts – [HU]; Literacy and Critical Inquiry - [L]

ENG260 - Film Analysis
LEC 3 Credits 3 Periods
Understanding and enjoyment of film and its correlation to literature, art, music, and other disciplines. Prerequisites: None. Cross-References: THE260
ENG925 - Teaching Composition in the Two-Year College
LEC  3 Credits  3 Periods
Overview of the theoretical and pedagogical strategies of teaching composition in the community college. Prerequisites: Bachelor's degree and permission of Instructor.

ENGLISH HUMANITIES (ENH)

ENH110 - Introduction to Literature
LEC  3 Credits  3 Periods
Introduction to international literature through various forms of literary expression; e.g., poetry, drama, essay, biography, autobiography, short story, and novel. Provides a global overview of literature with special emphasis on diverse cultural contributions of women, African Americans, Asian Americans, Hispanic Americans, and Native Americans. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]; Literary and Critical Inquiry - [L]

ENH111 - Literature and the American Experience
LEC  3 Credits  3 Periods
Introduction to the foundations and diversity of American culture through a survey of its literature, including minority and women writers. Exploration of various facets of American culture including frontier, regional, rural, and urban life; ethnic, racial, and immigrant experience; and political and social philosophies. Prerequisites: None.

ENH112 - Chicano Literature
LEC  3 Credits  3 Periods
Introduction to the works of Mexican-American writers of the Southwest. Samples poetry, fiction, and essays viewed in their relationship to American cultural heritage and to contemporary culture. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]; Cultural Diversity - [C]

ENH114 - African-American Literature
LEC  3 Credits  3 Periods
Survey of major African-American writers from Colonial Period through the present; analysis of trends and movements within African-American literary history; analysis of literary types and selected works. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]; Cultural Diversity - [C]

ENH214 - Poetry Study
LEC  3 Credits  3 Periods
Involves reading, discussing, and analyzing poetry of various forms and from selected Periods. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]

ENH241 - American Literature Before 1860
LEC  3 Credits  3 Periods
Includes literature written prior to 1860 in the United States. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]

ENH242 - American Literature After 1860
LEC  3 Credits  3 Periods
Includes literature written after 1860 in the United States. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]

ENH251 - Mythology
LEC  3 Credits  3 Periods
Deals with the myths and legends of civilizations with the greatest influence upon the development of the literature and culture of the English speaking people and compares those myths with myths from other cultures. Prerequisites: None. General Education Designation: Global Awareness - [G]; Humanities and Fine Arts - [HU]

ENH254 - Literature and Film
LEC  3 Credits  3 Periods
Presents works of literature and their film versions and analyzes distinguishing techniques of each medium. Prerequisites: ENG101, or ENG107, or equivalent. General Education Designation: Humanities and Fine Arts - [HU]; Literary and Critical Inquiry - [L]

ENH255 - Contemporary U.S. Literature and Film
LEC  3 Credits  3 Periods
Strengths and weaknesses of literature and film. Challenges of adapting literature to film. Addressing racial, ethnic, gender, class and religious differences between cultures and mediums. Use of narrative in each medium and how it translates various cultural values and assumptions. Specific genres present in literature and film. Cultural metaphors and symbols used in literature and film. Prerequisites: ENG101. General Education Designation: Humanities and Fine Arts - [HU]; Literary and Critical Inquiry - [L]; Cultural Awareness - [C]

ENH259 - American Indian Literature
LEC  3 Credits  3 Periods
Contemporary American Indian forms of literary expression. Selected oral traditions of American Indians. Trends and movements within American Indian literary history. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]; Cultural Awareness - [C]

ENH260 - Literature of the Southwest
LEC  3 Credits  3 Periods
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. General Education Designation: Humanities and Fine Arts - [HU]; Cultural Diversity - [C]

ENH291 - Children's Literature
LEC  3 Credits  3 Periods
Review of folk and modern literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children. Prerequisites: None. Cross-References: EDU291 General Education Designation:
ENTREPRENEURIAL STUDIES (EPS)

EPS150 – Introduction to Entrepreneurship
LEC  3 Credits  3 Periods
Overview of entrepreneurship. Includes the entrepreneurial process and the skills required to be successful, including starting, planning, financing, marketing, and managing a business. Prerequisites: None.

EPS160 – New Venture Creation
LEC  2 Credits  2 Periods
Process of starting a new venture including evaluating specific business opportunities identifying financing alternatives, and defining start-up issues. Prerequisites: None.

EPS161 – New Venture Law and Finance
LEC  3 Credits  3 Periods
Introduction to the principles of legalization and capitalization of a new business venture. Includes the processes required to organize, register, finance, launch and protect a business. Prerequisites: None.

EPS165 – New Venture Feasibility Analysis
LEC  2 Credits  2 Periods
Introduction to the industry’s market and competitive structure. Includes the technical skills to develop a competitive strategy for entry into the business segment. Covers the market potential evaluation, niche identification, analysis of competition, and development of customer profiles. Also involves development of a marketing strategy and sales projections for new business ventures. Prerequisites: None.

EPS180 – Technology Business Planning
LEC  3 Credits  3 Periods

EPS195 – Business Start-Up and Planning
LEC  3 Credits  3 Periods
Development of a feasibility approach to strategic decision making concerning new venture start-up. Includes development of a business feasibility study and a preliminary business plan. Prerequisites: None.

ENGLISH AS A SECOND LANGUAGE (ESL)

ESL001 - Basic English as a Second Language I
LEC 6 Credits  6 Periods
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.

ESL001AD - Basic English as a Second Language I: Employment
LEC 1 Credit  1 Period
Listening, speaking, reading and writing in English at a basic level. Focus on survival skills related to employment when living in the United States. Introduction to elementary grammatical patterns. Prerequisites: ESL001AC, or ESL001CA, or permission of instructor. Course Note: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of two (2) credits.

ESL001AF - Basic English as a Second Language I: Everyday Life
LEC 1 Credit  1 Period
Listening, speaking, reading and writing in English at a basic level. Focus on survival skills related to everyday life when living in the United States. Introduction to elementary grammatical patterns. Prerequisites: ESL001AE, or permission of instructor. Course Note: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of two (2) credits.

ESL002BB - Basic ESL II: Services & Employment
LEC 2 Credits  2 Periods
Listening, speaking, reading, and writing English at a high beginning level. Focus on survival skills related to services and employment when living in the United States. Continuing development of grammatical patterns. May be repeated for a total of four (4) credits. Prerequisites: ESL002BA or permission of instructor. Course Note: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of two (2) credits.

ESL010 - English as a Second Language I-Grammar
LEC 3 Credits  3 Periods
First level of English as a Second Language (ESL). Emphasis on basic conversational skills, pronunciation, vocabulary building and grammar. Some reading and sentence level writing. Credit (P) or no Credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score.

ESL011 - English as a Second Language I Listening and Speaking
LEC  3 Credits  3 Periods
Emphasis on listening and speaking skills involving survival skills. Asking and answering questions related to work, shopping, and personal safety. May be repeated for a maximum of six Credits. Prerequisites: Appropriate ESL placement test score or ESL002. Course Notes: ESL011 may be repeated for a maximum of six (6) credits.

ESL020 - English as a Second Language II-Grammar
LEC  3 Credits  3 Periods
Second level of English as a Second Language (ESL) Continued emphasis on conversational skills, pronunciation, vocabulary building and grammar with some reading and sentence level writing. Credit (P) or no Credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) Credits. Prerequisites: Appropriate ESL placement test score, or a grade of “P” or “C” or better in ESL010, or (ESL010AA, ESL010AB, and ESL010AC)

ESL021 - English as a Second Language II Listening and Speaking
LEC  3 Credits  3 Periods
Emphasis on listening and speaking skills involving social exchange. Asking and answering questions, using tag questions. Practice with question and answer patterns. Polite questions and responses. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score or ESL010 or ESL011 or ESL012 or RDG010.

ESL022 - English as a Second Language II - Writing with Oral Practice
LEC  3 Credits  3 Periods
Emphasis on basic writing skills, accompanied by recitation of short writings. Sentence patterns and introduction of paragraph writing. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL course placement score, or a grade of C or better in ESL012, or permission of instructor.

ESL030 - English as a Second Language III-Grammar
LEC  3 Credits  3 Periods
Third level of English as a Second Language (ESL). Emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. Credit (P) or no Credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) Credits. Prerequisites: Appropriate ESL placement test score, or a grade of “P” or “C” or better in ESL020, or (ESL020AA, ESL020AB, and ESL020AC).

ESL031 - English as a Second Language III Listening and Speaking
LEC  3 Credits  3 Periods
Emphasis on listening and speaking skills related primarily to the academic environment. Asking questions, working in small groups, using college resources, informal oral presentation. May be repeated for a maximum of six Credits. Prerequisites: Appropriate ESL placement test score or ESL020 or ESL021 or ESL022 or RDG020.

ESL032 - ESL III - Writing with Oral Practice
LEC  3 Credits  3 Periods
Emphasis on complex sentence patterns in writing and speech. Introduction to the prewriting and writing process in a college setting. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL course placement score, or a grade of C or better in ESL022, or permission of instructor.

ESL040 - English as a Second Language IV-Grammar
LEC  3 Credits  3 Periods
Fourth level of English as a Second Language (ESL). Continued emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. Credit (P) or no Credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a maximum of six (6) Credits. Prerequisites: Appropriate ESL placement test score, or a grade of “P” or “C” or better in ESL030, or (ESL030AA, ESL030AB, and ESL030AC).

ESL041 - English as a Second Language IV-Learning and Speaking
LEC  3 Credits  3 Periods
Emphasis on academic skills. Listening to Lectures, note taking, peer interaction, accessing and using media resources, formal oral presentations. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL placement test score or ESL030 or ESL031 or ESL032 or RDG030.

ESL042 - ESL IV-Writing with Oral Practice
LEC  3 Credits  3 Periods
Emphasis on paragraph writing and oral recitation of complex sentences and paragraphs. Introduction to the prewriting and writing process for short essays. May be repeated for a maximum of six (6) credits. Prerequisites: Appropriate ESL course placement score, or a grade of C or better in ESL032, or permission of instructor.

ESL049 - General Vocational English as a Second Language
LEC  3 Credits  3 Periods
General English speaking, listening, reading, and writing skills needed for use at work. Prerequisites: Appropriate ESL placement test score, or a grade of “C” or better in ESL010, or (ESL010AA, ESL010AB, and ESL010AC), or permission of instructor.

ESL050 - Review Grammar For ESL
LEC  3 Credits  3 Periods
Review of grammatical concepts for ESL (English as a Second Language) students who have some previous experience in reading and writing English. Appropriate for students who want to practice sentence skills in English. May be repeated for a total of six (6) credits. Prerequisites: Appropriate ESL course placement score, or a grade of C or better in ESL040, or permission of instructor.

ESL051 - Pronunciation Improvement for ESL Speakers
LEC  3 Credits  3 Periods
Individualized pronunciation practice and drills for English as a second language (ESL) speakers. May be repeated for a maximum of six (6) Credits. Prerequisites: Appropriate ESL course placement score, or a grade of C or better in (ESL020 or ESL021 or ESL022 or RDG020), or permission of instructor.

ESS101 - Introduction to Employment Support
LEC  3 Credits  3 Periods
Roles and responsibilities of the Employment Support Specialist. Philosophy and values of employment support systems. Procedures and practices for establishing relationships with trainees, identifying suitable employment and assisting the trainee in learning the job for job acquisition. Prerequisites: None.

ESS052 - Job-Specific Writing and Speaking Skills for ESL
LEC  3 Credits  3 Periods
Using and understanding English for specific employment or vocational training. Includes English speaking, reading and writing skills. Prerequisites: Appropriate ESL test score or satisfactory completion of ESL049, or permission of instructor.

ESS052 - Job-Specific Writing and Speaking Skills for ESL
LEC  3 Credits  3 Periods
Using and understanding English for specific employment or vocational training. Includes English speaking, reading and writing skills. Prerequisites: Appropriate ESL test score or satisfactory completion of ESL049, or permission of instructor.

ESS061 - Informal Conversational and Written English for Non-native Speakers
LEC  3 Credits  3 Periods
Practice speaking and writing English in informal settings. Emphasis on friendly conversational techniques and effective use of the computer and the Internet to communicate in a friendly, relaxed manner. Prerequisites: Appropriate ESL placement test score, or completion of ESL020 or ESL021 or ESL022 or RDG020 with a grade of “P” or “C” or better.

ESL077 – Language Skills: Speaking and Writing Standard English for English Language Learner
LEC  3 Credits  3 Periods
Emphasis on basic Standard English speaking and writing skills. Focus on essential idiomatic grammar in developing effective sentence-level speaking and writing strategies. Prerequisites: Appropriate writing placement test score or permission of Department or Division.

EXS101 – Introduction to Exercise Science, Kinesiology, and Physical Education
LEC  3 Credits  3 Periods
Introductory course that will provide the student with a general overview of the disciplines and professions associated with the fields of Exercise Science, Kinesiology and Physical Education. Basic history, philosophy, and theory of each discipline will be examined as well as relevant career potential and options. Prerequisites: None.

EXS112 – Professional Applications of Fitness Principles
LEC  3 Credits  3 Periods
Basic principles of fitness for the prospective fitness professional and characteristics of quality communication and fitness leadership. Topics include behavior modification, enhancing motivation components of fitness, fitness assessment, risk stratification, exercise programming and modifications. Prerequisites: None

EXS125 – Introduction to Exercise Physiology
LEC  3 Credits  3 Periods
Principles of exercise science applied to teaching fitness/aerobics. Major factors related to the function of the human body. Emphasis on anatomy/physiology, exercise physiology, and biomechanics. Prerequisites: None. BIO160 recommended but not required.

EXS130 – Strength Fitness – Physiological Principles and Training Techniques
LEC  3 Credits  3 Periods
Principles and techniques of strength training including strength physiology, performance factors, training recommendations, exercise techniques, and program design and management. Prerequisites: None.

EXS132 – Cardiovascular Fitness: Physiological Principles and Training Techniques
L+L  3 Credits  3 Periods
Covers principles and techniques of aerobic training and the application of these to the development of aerobic training programs. Includes instructional techniques and safety, and stresses injury prevention. Prerequisites: None

EXS145 – Guidelines for Exercise Testing and Prescription
L+L  3 Credits  4.5 Periods
Follows the current ACSM guidelines for health appraisal, risk assessment, safety of exercise, exercise testing, and exercise training “assists”, data collection and documentation. Prerequisites: ESS101 or permission of department.

ESS110 - Americans with Disabilities Act Overview
LEC  2 Credits  2 Periods
Titles of Americans with Disabilities Act regulations and requirements including employment, transportation, accessibility, community awareness and assertive technology. Prerequisites: None.

EXERCISE SCIENCE (EXS)

EMPHOSYS

LEARNING SUPPORT SYSTEMS (ESS)

EXS01 - Introduction to Employment Support
LEC  3 Credits  3 Periods
Roles and responsibilities of the Employment Support Specialist. Philosophy and values of employment support systems. Procedures and practices for establishing relationships with trainees, identifying suitable employment and assisting the trainee in learning the job for job acquisition. Prerequisites: None.

ESS013 - Employment Support Systems Practices
LEC + LAB  3 Credits  5 Periods
Specific characteristics and safety requirements for developmental, physical and serious mental illness disabilities. Skills and techniques for Employment Support Specialists to assist trainees after employment acquisition. Responsibilities and on-the-job application in the employment setting including orientation, task/job analysis,
Basic vocabulary and grammar to develop conversational skills in French. Prerequisites: None.

FRE085AB - Speedy French II
LEC 1 Credit 1 Period
Intermediate vocabulary and grammar to develop conversational skills in French. Prerequisites: FRE085AA.

FRE085AC - Speedy French III
LEC 1 Credit 1 Period
Advanced vocabulary and grammar to develop conversational skills in French. Prerequisites: FRE085AB.

FRE101 - Elementary French I
LEC 4 Credits 4 Periods
Basic grammar, pronunciation and vocabulary of the French language. Includes the study of French culture, practice of listening, speaking, reading and writing skills. Prerequisites: None.

FRE102 - Elementary French II
LEC 4 Credits 4 Periods
Continued study of grammar and vocabulary of the French language along with the study of French culture. Emphasis on speaking, listening, reading and writing skills. Prerequisites: FRE101 or equivalent.

FRE1101
LEC 3 Credits 3 Periods
Basic grammar, pronunciation and vocabulary of the French language. Includes the study of French culture, practice of listening, speaking, reading and writing skills. Prerequisites: None.

FRE1102
LEC 3 Credits 3 Periods
Continued study of grammar and vocabulary of the French language along with the study of French culture. Emphasis on speaking, listening, reading and writing skills. Prerequisites: FRE101 or equivalent.

FOOD AND NUTRITION (FON)

FON100 - Introductory Nutrition
LEC 3 Credits 3 Periods
Basic nutrition concepts for health and fitness. Emphasizes current dietary recommendations for maximizing well-being and minimizing risk of chronic disease. Focuses on use of tables, food guides, and guidelines for making healthy food choices. Includes unique nutrition needs for selected stages of the lifecycle, methods for evaluating credibility of nutrition claims, principles of vegetarian nutrition, safe and economic use of supplements, principles of energy balance, basic elements of food safety, diet for exercise and sports, and personal dietary evaluation techniques. Not for predietetics or selected other preprofessional majors. May not be taken for credit if credit has been earned in FON100AA and/or FON100AC. Prerequisites: None.

FON105 – Nutrition Principles for Fitness Professionals
LEC 3 Credits 3 Periods
Basic principles of nutrition for the prospective fitness professional. Overview of health and wellness and its relationship to personal trainers. Emphasis on general principles of nutrition for health and fitness. Topics include: basic nutrition principles using the current food plans and dietary guidelines, label reading, estimating calorie and nutrient needs for health, fitness, sport, and weight management. Prerequisites: None

FON241 - Principles of Human Nutrition
LEC 3 Credits 3 Periods
Scientific principles of human nutrition. Emphasis on health promotion and concepts for conveying accurate nutrition information in a professional setting. Addresses therapeutic nutrition principles for treatment of common health conditions. Includes exploration of food sources of nutrients, basic metabolism of nutrients in the human body, relationship between diet and other lifestyle factors, use of supplements, current recommendations for food selection throughout the life cycle, and use of nutrition tools for planning food intake or assessment of nutritional status. Prerequisites: None

GENERAL BUSINESS (GBS)

GBS110 - Human Relations in Business and Industry
LEC 3 Credits 3 Periods
Exploration of fundamental theories and concepts of human relations in business and industry. Particular emphasis is placed on developing effective interpersonal relationships and leadership skills within an organization. Prerequisites: None.

GBS120 – Workplace Communication Skills
LEC 3 Credits 3 Periods
Reviews planning, organization, development, and evaluation of written and oral communication in business settings, including informative and persuasive messages. Prerequisites: None.

GBS131 - Business Calculations
LEC 3 Credits 3 Periods
Review of basic arithmetic and application of mathematics to business problems, includes percentage, interest, discount, and markups. Prerequisites: None.

GBS132 - Personal and Family Financial Security
LEC 3 Credits 3 Periods
Principles and practices of personal and family financial planning, includes savings, budgeting, credit, buying versus renting and general principles of consumerism. Prerequisites: None. Cross-References: HEC132
GBS151 - Introduction to Business
LEC  3 Credits  3 Periods
Characteristics and activities of current local, national, and international business. An overview of economics, marketing, management and finance. Prerequisites: None.

GBS161 - Mathematics of Business
LEC  3 Credits  3 Periods
Applications of basic financial mathematics; includes interest, financial statement, stocks and bonds, and international business. Prerequisites: GBS131 or permission of Department or Division.

GBS205 - Legal Ethical, and Regulatory Issues in Business
LEC  3 Credits  3 Periods
Legal theories, ethical issues and regulatory climate affecting business policies and decisions. Prerequisites: None.

GBS207 - Business Law (General Corporate)
LEC  3 Credits  3 Periods
Legal and ethical aspects of agency, partnerships, corporations, bankruptcy, antitrust, securities, and other regulations of business. Prerequisites: None.

GBS220 - Quantitative Methods of Business
LEC  3 Credits  3 Periods
Business applications of quantitative optimization methods in operations management decisions. Prerequisites: (Grade of “C” or better in MAT150, or MAT151, or MAT152) or equivalent, or satisfactory score on district placement exam.

GBS221 - Business Statistics
LEC  3 Credits  3 Periods
Business applications of descriptive and inferential statistics, measurement of relationships, and statistical process management. Includes the use of spreadsheet software for business statistical analysis. Prerequisites: Grade of C or better in GBS220 or MAT217. General Education Designation: Computer/Statistics/Quantitative Applications - [CS]

GBS233 - Business Communication
LEC  3 Credits  3 Periods
Internal and external business communications, including verbal and nonverbal techniques. Prerequisites: ENG 101 or ENG 107 with grade of “C” or better, or permission of department/division. General Education Designation: Literacy and Critical Inquiry -[L]

GBS261 - Investments I
LEC  3 Credits  3 Periods
Evaluation of various investment forms including study of inflation, taxation, government securities, stocks and bonds, real estate and retirement plans. Prerequisites: None.

GBS270AC - Business Internship
LEC  3 Credits  3 Periods
General business work experience in a business or industry. Eighty hours of designated work per credit. Prerequisites: Permission of Department or Division.

GBS296WC – Cooperative Education
LAB  3 Credits  15 Periods
Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student’s major or career interest or with permission of the Instructor.

GERMAN (GER)
GER085AA - Speedy German I
LEC  1 Credit   1 Period
Basic grammar and vocabulary of the German language to practice listening and speaking skills. Prerequisites: None.

GER085AB - Speedy German II
LEC  1 Credit   1 Period
Intermediate vocabulary, German syntax and inflections to further develop conversational skills in German. Prerequisites: GER085AA.

GER085AC - Speedy German III
LEC  1 Credit   1 Period
Continued development of German speaking and listening skills to express opinions and thoughts on a variety of subjects. Prerequisites: GER085AA and GER085AB.

GER101 - Elementary German I
LEC  4 Credits  4 Periods
Basic grammar, pronunciation and vocabulary of the German language. Includes the study of German culture, practice of listening, speaking, reading and writing skills. Prerequisites: None.

GER102 - Elementary German II
LEC  4 Credits  4 Periods
Continued study of grammar and vocabulary of the German
language along with the study of German culture. Emphasis on German language skills. Prerequisites: GER101 or equivalent.

**GEOLOGY (GLG)**

GLG101 - Introduction to Geology I – Physical Lecture
LEC 3 Credits 3 Periods
A study of the kind and arrangement of materials composing the earth’s crust and the geological processes at work on and within the earth’s surface. Prerequisites: None. General Education Designation: Natural Sciences (General) – [SG] in combination with: GLG110

GLG102 - Introduction to Geology II – Historical Lecture
LEC 3 Credits 3 Periods
Outlines the origin and history of the earth with emphasis on North America - its dynamic, geographic, and climatic changes; animals and plants of the past; the evolution of life. Prerequisites: None. General Education Designation: Historical Awareness [H]; Natural Sciences (General) – [SG] in combination with: GLG104

GLG103 - Introduction to Geology I: Physical LAB
LAB 1 Credit 3 Periods
May accompany GLG 101. Study of common rock forming minerals, rocks and maps. Prerequisites: None. General Education Designation: Natural Sciences (Quantitative) – [SQ] in combination with: GLG101

GLG104 - Introduction to Geology II: Historical
LAB 1 Credit 3 Periods
May accompany GLG 102. Study of geological structures and rocks, fossils, and geologic maps. may require field trips. Prerequisites: None. General Education Designation: Natural Sciences (General) [SG] in combination with: GLG102

GLG110 - Geologic Disasters and the Environment
LEC 3 Credits 3 Periods
Acquaints students with the use and importance of geological studies as they apply to the interactions between people and the earth. Includes geological processes and hazards such as floods, earthquakes and landslides; use of fossil fuels; mining of raw materials. Prerequisites: None. General Education Designation: Global Awareness – [G]; Natural Sciences (General) – [SG] in combination with: GLG111

GLG111 - Geologic Disasters and the Environment
LAB 1 Credit 3 Periods

**PHYSICAL GEOGRAPHY – (GPH)**

GPH111 – Introduction to Physical Geography
LEC 4 Credit 3 Periods
Spatial and functional relationships among climates, landforms, soils, water, and plants. Prerequisites: None General Education Designation: Natural Sciences (Quantitative) – [SQ] in combination with: GPH101

GPH211 – Landform Processes
LEC 4 Credit 3 Periods
LAB 0 Credit 3 Periods
Geographic characteristics of landforms and earth-surface processes emphasizing erosion, transportation, deposition and implications for human management of the environment. Prerequisites: ENG101 or ENG107 equivalent. General Education Designation: Natural Sciences (Quantitative) – [SQ] in combination with: GPH215

GPH213 – Introduction to Climatology
LEC 3 Credit 3 Periods
LAB 1 Credit 3 Periods
Study of atmospheric phenomena over periods of time measured in months, years or longer. Includes average weather conditions, infrequent and unusual types of weather, and the influence of weather on the cultural and human landscape. Prerequisites: None. General Education Designation: Natural Sciences (General) - [SG] in combination with: GPH213

**HEALTH CORE CURRICULUM (HCC)**

HCC109 - CPR for Health Care Provider
LEC 0.50 Credits 0.50 Periods
Current American Heart Association standards for one and two rescuer cardiopulmonary resuscitation (CPR) and obstructed airway procedures on the adult, infant, and pediatric victim. Use of automatic, external defibrillation and resuscitation equipment. Prerequisites: None. Cross-References: EMT109, RES109

HCC130 - Fundamentals of Health Care Delivery
LEC 3 Credits 3 Periods
Overview of current health care professions including career and labor market information. Health care delivery systems, third party payers, and facility ownership. Health organization structure, patient rights and quality care. Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Healthful living practices to include nutrition, stress management and exercise. Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily...
HEALTH CARE RELATED (HCR)

HCR210 - Clinical Health Care Ethics
LEC 3 Credits 3 Periods
An introduction to health care ethics with emphasis on analysis and ethical decision making at both the clinical and health policy levels for health care professionals. Theoretical foundation of bioethics reviewed within historical and contemporary contexts. Prerequisites: ENG102 or ENG108 or permission of Instructor. General Education Designation: Humanities, Arts and Design - [HU]

HCR220 - Introduction to Nursing and Health Care Systems
LEC 3 Credits 3 Periods
Introduction to the social, political, and economic contexts of the nursing profession and health care systems in the United States. Prerequisites: A grade of “C” or better in ENG102 or ENG108 or permission of Instructor. General Education Designation: Historical Awareness – [H]

HCR230 - Culture and Health
LEC 3 Credits 3 Periods
Relation between cultures of diverse groups and health/illness. Emphasis on cross-cultural communication, including awareness of own cultural influences and indigenous and complementary healing practices. Prerequisites: None. [C, G]

HCR240 - Human Pathophysiology
LEC 4 Credits 4 Periods
Chemical, biological, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered. Prerequisites: BIO202 or BIO205, or permission of Instructor.

HEALTH SCIENCES (HES)

HES100 - Healthful Living
LEC 3 Credits 3 Periods
Health and wellness and their application to an optimal life style. Explores current topics of interest such as stress management, nutrition, fitness, and environmental health. Evaluates common risk factors associated with modern lifestyles. Prerequisites: None. General Education Designation: Social and Behavioral Sciences - [SB]

HES154 - First Aid/Cardiopulmonary Resuscitation
LEC 3 Credits 3 Periods
Cardiopulmonary Resuscitation (CPR) and first aid for the adult, child and infant patients includes Automated External Defibrillator(AED), rescue breathing, obstructed airway, and other first aid procedures. Designed to train citizen responders in skills and procedures required during emergency situation. Prerequisites: None.

HISTORY (HIS)

HIS101 - History of Western Civilization Middle Ages to 1789
LEC 3 Credits 3 Periods
Survey of origin and development of Western civilization and its institutions from the Renaissance and Reformation through Age of Enlightenment. Prerequisites: None. General Education Designation: Historical Awareness - [H]; Humanities and Fine Arts - [HU]; Social and Behavioral Sciences - [SB]

HIS102 - History of Western Civilization 1789 to Present
LEC 3 Credits 3 Periods
Survey of origin and development of Western civilization and its institutions from French Revolution through the present. Prerequisites: None. General Education Designation: Historical Awareness – [H]; Humanities and Fine Arts – [HU]; Social and Behavioral Sciences - [SB]

HIS103 - United States History to 1865
LEC 3 Credits 3 Periods
The political, economic, and social development of United States from Pre-Columbian period through the end of the Civil War (1865). Prerequisites: None. General Education Designation: Historical Awareness – [H]; Humanities and Fine Arts – [HU]; Social and Behavioral Sciences - [SB]

HIS104 - United States History 1865 to Present
LEC 3 Credits 3 Periods
The political, economic, and social development of United States from 1865 to the present time The political, economic, and social development of United States from 1865 to the present time. Prerequisites: None. General Education Designation: Historical Awareness – [H]; Social and Behavioral Sciences - [SB]

HIS105 - Arizona History
LEC 3 Credits 3 Periods
The prehistoric and contemporary Native American experience, Spanish colonial times, the Mexican National Period, the U.S. federal territorial years, and Arizona's political and economic development during the twentieth century. Prerequisites: None. General Education Designation: Historical Awareness – [H]; Social and Behavioral Sciences - [SB]

HIS106 - Southwest History
LEC 3 Credits 3 Periods
Survey of Hispanic, Anglo, African-American and Native cultures of the peoples who have settled the American
Southwest. Emphasis on cattle, mining, fur trade and transportation industries and role development of the region. Prerequisites: None. General Education Designation: Historical Awareness – [H]; Social and Behavioral Sciences - [SB]; Cultural Diversity [C]

HIS109 - Mexican-American History and Culture
LEC 3 Credits 3 Periods
Examination of origins and development of Spanish-American and Mexican-American peoples and their contribution to culture, history and development of United States. Emphasis on Mexican-American War and its impact on educational, social, and economic conditions of the Mexican-Americans of the southwest. Prerequisites: None. General Education Designation: Historical Awareness – [H]; Social and Behavioral Sciences - [SB]; Cultural Diversity [C]

HIS111 - World History 1500 to Present
LEC 3 Credits 3 Periods
Survey of the economic, social, cultural, and political elements of world history from 1500 to the present. Prerequisites: None. General Education Designation: Global Awareness – [G]; Historical Awareness – [H]; Humanities and Fine Arts - [HU]

HIS140 - American Indian History
LEC 3 Credits 3 Periods
Survey of American Indian history with emphasis on the last 200 years including developments in the 20th century. Focuses on selected groups such as the Cherokee, Iroquois Confederation, Navajo, Sioux and Indians of the Southwest in relation to cultural, economic, political and social continuity and change. Topics include development and influence of federal policies, past and present issues confronting Native Americans and how Native American individuals and communities maintain their identities as they confront social change. Prerequisites: None. Cross-References: AIS140 General Education Designation: Cultural Diversity – [C]; Historical Awareness – [H]; Social and Behavioral Sciences - [SB]

HIS201 - History of Women in America
LEC 3 Credits 3 Periods
Introduction to women’s history from the colonial Period to the present. Deals chronologically with changes and developments which have influenced the lives of women. Prerequisites: None. General Education Designation: Cultural Diversity – [C]; Historical Awareness – [H]; Social and Behavioral Sciences - [SB]

HIS203 - African-American History to 1865
LEC 3 Credits 3 Periods
History and cultural heritage of African-Americans from their beginnings in Ancient Africa through the experience of chattel slavery in the Americas to their eventual emancipation and participation in the American Civil War. Prerequisites: None. General Education Designation: Cultural Diversity – [C]; Historical Awareness – [H]; Humanities and Fine Arts - [HU]; Social and Behavioral Sciences - [SB]

HIS204 - African-American History 1865 to Present
LEC 3 Credits 3 Periods
Multifaceted experiences of African-American people from the post-Civil War period (1865) to the present, including the collective struggle for freedom, equality, and self-determination in the United States. Prerequisites: None. General Education Designation: Cultural Diversity – [C]; Historical Awareness – [H]; Social and Behavioral Sciences - [SB]

HONORS (HON)
HON201 – Leadership Development: Historical and Contemporary Perspectives
LEC 3 Credits 3 Periods
Interdisciplinary study of leadership focusing on development of leadership skills. Prerequisites: Admission to the college honors program or permission of instructor. General Education Designation: Social and Behavioral Sciences – [SB]

HUMANITIES (HUM)
HUM100 - Great Ideas Symposium
LEC 1 Credit 1 Period
Interrelationships among cultures and behavior in the modern world. Focuses on selected themes and topics. Prerequisites: None.

HUM101 - General Humanities
LEC 3 Credits 3 Periods
A general humanities course concentrating on three great ages of outstanding human achievement: The Golden Age of Greece, the Renaissance and the 20th Century. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]

HUM107 – Humanities Through the Arts
LEC 3 Credits 3 Periods
Introduction to humanities including film, drama, music, literature, painting, sculpture, and architecture. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]

HUM190AA-AI - Honors Forum
LEC 1 Credit 1 Period
Interdisciplinary studies of selected issues confronting the individual and society. Formal LECTures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues. Prerequisites: Admission to the College Honors Program or Permission of the Instructor. [AH through AI prefix have HU designation].

HUM201 – Humanities: Universal Themes
LEC 3 Credits 3 Periods
Study of worldviews in a variety of historical and contemporary
world cultures, including analysis of origin and creation myths, artistic expression, spirituality, and the natural environment. Prerequisites: None. General Education Designation: Global Awareness - [G]; General Education Designation: Humanities and Fine Arts - [HU]

HUM205 - Introduction to Cinema
LEC 3 Credits 3 Periods Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements. Prerequisites: None. Cross-References: THE205 General Education Designation: Humanities and Fine Arts - [HU]

HUM210 - Contemporary Cinema
LEC 3 Credits 3 Periods A study of contemporary films, directors and critics with emphasis on evaluating film as an art form. Prerequisites: None. Cross-References: THE210 General Education Designation: Humanities and Fine Arts - [HU]

HUM213 - Hispanic Film
LEC 3 Credits 3 Periods Analysis of Hispanic film as art form and as social commentary. Prerequisites: None. General Education Designation: Global Awareness - [G]; Humanities and Fine Arts - [HU]

HUM214 - African-Americans in Film
LEC 3 Credits 3 Periods Study of films featuring African-American performers and directors from the Silent Era to the present. Emphasis on the historical and social elements of African Americans in film and basics of film analysis. Prerequisites: None. General Education Designation: Cultural Diversity - [C]; Humanities and Fine Arts - [HU]

HUM250 - Ideas and Values in the Humanities
LEC 3 Credits 3 Periods An historical analysis of the interrelationships of art, architecture, literature, music, and philosophy from the early civilizations to the Renaissance, including western and non-western cultures. Prerequisites: ENGL101. General Education Designation: Historical Awareness - [H]; Humanities and Fine Arts - [HU]; Literacy and Critical Inquiry - [L]

HUM251 - Ideas and Values in the Humanities
LEC 3 Credits 3 Periods An historical analysis of the interrelationships of art, architecture, literature, music, and philosophy from the Renaissance to modern period, including Western and Non-Western cultures. Prerequisites: ENGL101. General Education Designation: Historical Awareness - [H]; Humanities and Fine Arts - [HU]; Literacy and Critical Inquiry - [L]

HUM260 - Intercultural Perspectives
LEC 3 Credits 3 Periods Cultural, literary, and artistic expressions of Native, Hispanic, and African Americans. Includes traditional and modern work and contribution to American civilization. Prerequisites: None. General Education Designation: Cultural Diversity - [C]; Humanities and Fine Arts - [HU]

HUM292 - The Art of Storytelling
LEC 3 Credits 3 Periods Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom. Prerequisites: None. Cross-References: EDU292, STO292 General Education Designation: Humanities and Fine Arts - [HU]; Cultural Diversity - [C]

INFORMATION STUDIES (IFS)

IFS110 – Critical Research for College Success
LEC 1 Credit 1 Period Access, evaluate, and incorporate sources appropriately into academic projects. Prerequisites: None. Course Notes: IFS110 may be repeated for a total of four (4) credit hours.

IFS201 – Research in the Digital Age
LEC 3 Credits 3 Periods Development of skills and competency in accessing, evaluating and using information resources while examining the social and historical context, as well as the technological implications of the use and organization of information. Prerequisites: A grade of “C” or better in ENG101 or ENG107. General Education Designation: Literacy and Critical Inquiry - [L]

IFS210 – Research in a Global Society
LEC 3 Credits 3 Periods A comparative study focused on access to digital information in a global environment. Explore the global culture developing around the Internet and the impact of local, national and global cultures as well as economic and social factors related to the flow of information in a global society. Examine emerging technologies to produce and distribute information across cultures in a global society in an ethical manner. Prerequisites: None. Course Notes: IFS210 may be repeated for a total of six (6) credit hours. General Education Designation: Global Awareness [G]

INDUSTRY AND BUSINESS (IND)

IND133 - Speaking in Business
LEC 3 Credits 3 Periods 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.

INFANT/TODDLER DEVELOPMENT (ITD)

ITD200 – The Physical Child: Birth to Age Three
LEC  3 Credits  3 Periods
Examines the physical aspects of child growth and development in the first three years of life in the context of contemporary communities. Includes nutrition and feeding, health and safety, motor skills and exercise, neurological development, and identification of developmental delay. Prerequisites: CFS/ECH176, or CFS235, or EED205.

ITD210 – Early Attachments, Relationships, and Families: Birth to Age Three
LEC  3 Credits  3 Periods
Explores the attachment process and relationships within families. Considers contemporary social contexts where children develop a concept of self, self-regulation, and interaction skills with children and adults. Examines social-emotional development, societal stresses, and supportive professional roles and responsibilities. Prerequisites: CFS/ECH176, or CFS235, or EED205.

ITD220 – Cognition and Communication: Birth to Age Three
LEC  3 Credits  3 Periods
Examines the cognitive development and language acquisition of infants and toddlers. Considers the role of people and daily environments on development. Also covers disabilities and developmental delays as well as major theories and research in the field. Prerequisites: CFS176/ECH176, or CFS235, or EED205

INFORMATION TECHNOLOGY SECURITY (ITS)
ITS100 - Information Security Awareness
LEC  1 Credit  2 Periods
Computer and network security topics, including network communication. Includes security policy, implementation of basic security measures, the importance of backups and the value of protecting intellectual property. Real-life examples and practical projects to reinforce the need for computer security. Prerequisites: None.

ITS110 - Information Security Fundamentals
LEC + LAB  3 Credits  4 Periods
Fundamental concepts of information technology security. Topics include authentication methods, access control, cryptography, Public Key Infrastructure (PKI), network attack and defense methods, hardening of operating systems and network devices, securing remote access and wireless technologies and securing infrastructures and topologies. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and Microsoft (MS) Windows and Linux Administration. Prerequisites: CIS126DA, or CIS126DL, or permission of Program Director. Prerequisites or Corequisites: Any MST150++ course.

MATHEMATICS (MAT)
MAT065 - Graphing Calculator
LEC  1 Credit  1 Period

MAT082 - Basic Arithmetic
LEC  3 Credits  3 Periods
Primary emphasis placed on fundamental operations with whole numbers, fractions, decimals, integers, and rational numbers; proportions, and percentages. Other topics include representations of data, geometric figures, and measurement. Prerequisites: None. Course Notes: Students may receive credit for only one of the following: MAT081, MAT082, or MAT083.

MAT090 - Developmental Algebra
LEC  5 Credits  5 Periods
Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications. Prerequisites: A grade of “C” or better in MAT082 or successful completion of required Maricopa Modules or satisfactory score on District placement exam. Course Note: Students may receive credit for only one of the following: MAT090, MAT091, MAT092, or MAT093.

MAT091 - Introductory Algebra
LEC  4 Credits  4 Periods
Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications. Prerequisites: A grade of “C” or better in MAT082 or successful completion of required Maricopa Modules or satisfactory score on District placement exam. Course Note: May receive credit for only one of the following: MAT090, MAT091, MAT092, or MAT093.

MAT092 - Introductory Algebra
LEC  3 Credits  3 Periods
Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications. Prerequisites: A grade of “C” or better in MAT082 or successful completion of required Maricopa Modules or satisfactory score on District Placement exam. Course Note: May receive credit for only one of the following: MAT090, MAT091, MAT092, or MAT093.

MAT093 - Introductory Algebra/Math Anxiety Reduction
LEC  5 Credits  5 Periods
Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications. This course will be supplemented by instruction in anxiety reducing techniques, math study skills, and test taking techniques. Prerequisites: Grade of “C” or better in MAT082 or successful...
MAT108 - Tutored Mathematics  
LEC  2 Credits  2 Periods  
Structured tutorial assistance and math study skills to help students achieve success in a mathematics course in which they are concurrently enrolled. Mathematics study skills emphasized. Prerequisites: None. Corequisites: MAT082, or MAT090, or MAT091, or MAT092, or MAT120, or MAT121, or MAT122, or MAT140, or MAT 141, or MAT 142, or MAT150, or MAT152, or permission of department chair. Course Note: MAT108 may be repeated for a total of ten (10) credits.

MAT112 - Mathematical Concepts/Applications  
LEC  3 Credits  3 Periods  
A problem solving approach to mathematics as it applies to real-life situations. Development, use and communication of mathematical concepts and applications that relate to measurement, percentage, practical geometry, statistics, finance, and unit conversions. Prerequisites: A grade of “C” or better in MAT090, or MAT091, or MAT092, or MAT093, or successful completion of required Maricopa modules, or satisfactory score on District placement exam.

MAT120 - Intermediate Algebra  
LEC  5 Credits  5 Periods  
Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. Prerequisites: A grade of “C” or better in MAT090, or MAT091, or MAT092, or MAT093, or successful completion of required Maricopa Modules, or satisfactory score on District placement exam. Course Note: Students may receive credit for only one of the following: MAT120, MAT121, or MAT122.

MAT121 - Intermediate Algebra  
LEC  4 Credits  4 Periods  
Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. Prerequisites: (A grade of “C” or better in MAT090, or MAT091, or MAT092, or MAT093), or successful completion of required Maricopa Modules, or satisfactory score on District placement exam. or a grade of “C” or better in MAT120, or MAT121, or MAT122. Course Note: Students may receive credit for only one of the following: MAT140, MAT141, or MAT142. General Education Designation: Mathematics - [MA]

MAT140 - College Mathematics  
LEC  5 Credits  5 Periods  
College-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include set theory, probability, statistics, finance, and geometry. Prerequisites: (A grade of “C” or better in MAT090, or MAT091, or MAT092, or MAT093), or successful completion of Maricopa Modules, or satisfactory score on District placement exam, or a grade of “C” or better in MAT120, or MAT121, or MAT122. Course Note: Students may receive credit for only one of the following: MAT140, MAT141, or MAT142. General Education Designation: Mathematics - [MA]

MAT142 - College Mathematics  
LEC  3 Credits  3 Periods  
College-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include set theory, probability, statistics, finance, and geometry. Prerequisites: (A grade of “B” or better in MAT090, or MAT091, or MAT092, or MAT093), or successful completion of Maricopa Modules, or satisfactory score on District placement exam, or a grade of “C” or better in MAT120, or MAT121, or MAT122. Course Notes: Students may receive credit for only one of the following: MAT140, MAT141, or MAT142. General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 1142
MAT151 - College Algebra/Functions
LEC  4 Credits  4 Periods
Analysis and interpretation of the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, modeling and solving real world problems. Additional topics may include matrices, combinatorics, sequences and series, and conics. Prerequisites: Grade of "C" or better in MAT120, or MAT121, or MAT122, or equivalent, or satisfactory score on District placement exam. Course Note: Students may receive credit for only one of the following: MAT151, MAT152, or MAT187. General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 1151

MAT152 - College Algebra/Functions
LEC  3 Credits  3 Periods
Analysis and interpretation of the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, modeling and solving real world problems. Additional topics may include matrices, combinatorics, sequences and series, and conics. Prerequisites: Grade of "B" or better in MAT120, or MAT121, or MAT122, or equivalent, or satisfactory score on District placement exam. CourseNote: Students may receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187. General Education Designation: Mathematics - [MA] in combination with: MAT182

MAT156 - Mathematics for Elementary Teachers I
LEC  3 Credits  3 Periods
Focuses on numbers and operations. Algebraic reasoning and problem solving integrated throughout the course. Prerequisites: Grade of "C" or better in MAT142 or MAT150 or MAT151 or MAT152 or equivalent, or satisfactory score on District placement exam.

MAT157 - Mathematics for Elementary Teachers II
LEC  3 Credits  3 Periods
Focuses on measurement, geometry, probability and data analysis. Appropriate technologies, problem solving, reasoning, and proof are integrated throughout the course. Prerequisite: MAT156 or equivalent.

MAT172 - Finite Mathematics
LEC  3 Credits  3 Periods
An introduction to the mathematics required for the study of social and behavioral sciences. Includes sets, combinatorics, probability, matrix algebra, linear programming and mathematics of finance. Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or MAT187 or equivalent, or satisfactory score on District placement exam. General Education Designation: Mathematics - [MA]

MAT182 - Plane Trigonometry
LEC  3 Credits  3 Periods
A study of measures of angles, properties of graphs of trigonometric functions, fundamental identities, addition and half-angle formulas, inverse trigonometric functions, solutions of trigonometric equations, complex numbers and properties of triangle solution. May receive Credit for only one of the following: MAT182 or MAT187. Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or equivalent, or concurrent registration in MAT150, or MAT151, or MAT152, or satisfactory score on District placement exam. [MAT152 and MAT182 must be taken as block to meet AGEC value.] General Education Designation: Mathematics - [MA]

MAT187 - Pre-calculus
LEC  5 Credits  5 Periods
A precalculus course combining topics from college algebra and trigonometry. Preparation for analytic geometry and calculus. Prerequisites: Grade of B or better in MAT120, or MAT121, or MAT122, or equivalent, or satisfactory score on district placement exam. Course Note: Strongly recommended that students have some knowledge of trigonometry. Students may receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187. General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 1187

MAT206 - Elements of Statistics
LEC  3 Credits  3 Periods
Basic concepts and applications of statistics, including data description, estimation and hypothesis tests. Prerequisites: (A grade of "C" or better in MAT140 or MAT141 or MAT142) or (A grade of "C" or better in MAT150 or MAT151 or MAT152) or equivalent, or satisfactory score on District placement exam. General Education Designation: Computer/Statistics/Quantitative Applications - [CS] Arizona Shared Unique Number SUN# 1160

MAT212 - Brief Calculus
LEC  3 Credits  3 Periods
Introduction to the theory, techniques and applications of the differential and integral calculus of functions with problems related to business, life, and the social sciences. Prerequisites: Grade of "C" or better in MAT140 or MAT141 or MAT142 or MAT150 or MAT151 or MAT152 or equivalent, or satisfactory score on District placement exam. General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 2212

MAT213 - Brief Calculus
LEC  4 Credits  4 Periods
Introduction to the theory, techniques, and applications of the differential and integral calculus of functions with problems related to business, life, and the social sciences.
Techniques of integration for both proper and improper integrals with applications to the physical and social sciences, elements of analytic geometry, and the analysis of sequences and series. Prerequisites: Grade of “C” or better in MAT220, or MAT221, or equivalent. Course Note: Student may receive credit for only one of the following: MAT230 or MAT231. General Education Designation: Mathematics - [MA]

MAT230 – Calculus with Analytic Geometry III
LEC  4 Credits  4 Periods
Multivariate calculus including vectors, vector-valued functions, partial differentiation, multiple integration, and an introduction to vector fields. Prerequisites: Grade of “C” or better in MAT230 or MAT231. Course Note: Students may receive credit for only one of the following: MAT240 or MAT241. Course Attributes: General Education Designation: Mathematics - [MA]

MAT231 – Calculus with Analytic Geometry III
LEC  5 Credits  5 Periods
Multivariate calculus including vectors, vector-valued functions, partial differentiation, multiple integration and an introduction to vector fields. Prerequisites: Grade of “C” or better in MAT230 or MAT231. Course Note: Students may receive credit for only one of the following: MAT230 or MAT231. General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 2230

MAT220 - Calculus with Analytic Geometry I
LEC  5 Credits  5 Periods
Limits, continuity, differential and integral calculus of functions of one variable. Prerequisites: Grade of “C” or better in [MAT182 and (MAT150, MAT151 or MAT152)], or MAT187, or appropriate Math placement test score. Course Note: Students may receive credit for only one of the following: MAT220 or MAT221. General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 2220

MAT221 - Calculus with Analytic Geometry I
LEC  4 Credits  4 Periods
Limits, continuity, differential and integral calculus of functions of one variable. Prerequisites: Grade of “C” or better in [MAT182 and (MAT150, MAT151 or MAT152)], or MAT187, or appropriate Math placement test score. Course Note: Student may receive credit for only one of the following: MAT220 or MAT221. General Education Designation: Mathematics - [MA]

MAT225 – Elementary Linear Algebra
LEC  3 Credits  3 Periods
Introduction to matrices, systems of linear equations, determinants, vector spaces, linear transformations and eigenvalues. Emphasizes the development of computational skills. Prerequisites: Grade of “C” or better in MAT220, or MAT221, or equivalent.

MAT230 – Calculus with Analytic Geometry II
LEC  5 Credits  5 Periods
Techniques of integration for both proper and improper integrals with applications to the physical and social sciences, elements of analytic geometry, and the analysis of sequences and series. Prerequisites: Grade of C or better in MAT220 or MAT221 or equivalent. Students may receive credit for only one of the following: MAT230 or MAT231. General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 2230

MAT231 - Calculus with Analytic Geometry II
LEC  4 Credits  4 Periods
Techniques of integration for both proper and improper
Grade of “C” or better in MAT230 or MAT231 or equivalent. General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 2262

MAT276 - Modern Differential Equations
LEC  3 Credits  3 Periods
Introduces differential equations, theoretical and practical solution techniques with applications. Problem solving using MATLAB. Prerequisites: Grade of “C” or better in MAT230 or MAT231, or permission of Department or Division. Course Notes: Students may receive credit for only one of the following: MAT276 or MAT277. General Education Designation: Mathematics - [MA]

MAT277 – Modern Differential Equations
LEC  3 Credits  3 Periods
Introduces differential equations, theoretical and practical solution techniques with applications. Problem solving using MATLAB. Prerequisites: Grade of C or better in MAT230 or MAT231 or permission of Department or Division. General Education Designation: Mathematics – General Education Designation: Mathematics - [MA]

MANAGEMENT (MGT)
MGT101 - Techniques of Supervision
LEC  3 Credits  3 Periods
Overview of the foundations of supervision and how to get things done within an organization through other people. The functions of planning, organizing, staffing, motivating and controlling presented. Prerequisites: None.

MGT135 - Global Procurement and Supply Management
LEC  3 Credits 3 Periods
The evolution of purchasing to supply management. Underlying fundamentals of tactical purchasing and strategic supply management. Prerequisites: MGT102 or permission of department.

MGT175 – Business Organization and Management
LEC  3 Credits  3 Periods
Covers basic principles of managing quality and performance in organizations. Covers management functions: planning, organizing, leading, and controlling. Emphasizes continual improvement, ethics, and social responsibility. Prerequisites: None

MGT179 - Utilizing the Human Resources Department
LEC + LAB  3 Credits  3 Periods
Provides the opportunity to learn how to appropriately utilize the human resources department within an organization in order to improve job performance. Topics include staffing, training and development, manpower planning, compensation and benefits, federal labor laws and why people seek outside representation. Prerequisites: None

MGT180 - Retail Management
LEC  3 Credits  3 Periods
The role of management in retailing and retail performance.

Challenges and processes of retail management across various institutions. Prerequisites: None

MGT229 - Management and Leadership I
LEC  3 Credits  3 Periods
Covers management concepts and applications for business, industry, and government organizations. Prerequisites: None.

MGT230 - Management and Leadership II
LEC  3 Credits  3 Periods
Includes practical applications of activities, issues, and problems related to current managerial and supervisory skills and talents. Prerequisites: MGT 229 or departmental approval.

MGT251 - Human Relations in Business
LEC  3 Credits  3 Periods
Analysis of motivation, leadership, communications, and other human factors. Cultural differences that may create conflict and affect morale individually and within organizations. Prerequisites: None. MGT 101 or MGT 175 or MGT 229 suggested, but not required.

MGT253 - Owning and Operating a Small Business
LEC  3 Credits  3 Periods
Starting, organizing, and operating a small business, including location, finance management processes, advertisement and promotion, Credit, inventory control and ethics. Prerequisites: None.

MGT275 - Office Management and Procedures
LEC  3 Credits  3 Periods
Covers basic administrative office services and systems, including analysis and management of operations, information systems, human resources, and facilities design. Prerequisites: None. MGT 175 or MGT 229 suggested, but not required.

MGT276 - Personnel/Human Resource Management
LEC  3 Credits  3 Periods
Human resource planning, staffing, training, compensating, and appraising employees in labor management relation—ships. Prerequisites: None. MGT101, or MGT175, or MGT229 suggested but not required.

MGT277 - Labor Relations
LEC  3 Credits  3 Periods
Covers the historical, legal, and environmental parameters surrounding current labor/management relations, including contract negotiations and grievance procedures. Prerequisites: None. MGT101, MGT175, or MGT229 suggested but not required.

MGT296WA-WD - Cooperative Education
LAB  1-4 Credits  5-20 Periods/arranged
Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. Prerequisites: Completion of at least twelve (12) college Credits, minimum 2.6 grade point average, and be able to obtain a position.
related to student’s academic or career goals (student’s present job may qualify); or permission of instructor. Co requisites: Must be concurrently enrolled in at least one class which is related to student’s major or career interest or with permission of the instructor.

MUSIC HISTORY/LITERATURE (MHL)
MHL140 - Survey of Music History
LEC  3 Credits  3 Periods
Study of composers, compositions, styles, and periods in music history. Prerequisites: None. General Education Designation: Historical Awareness - [H]; Humanities and Fine Arts – [HU]

MHL145 - American Jazz and Popular Music
LEC  3 Credits  3 Periods
The study of cultural and social contributions to the evolution of American jazz and popular music from the mid-1800’s to present. Prerequisites: None. General Education Designation: Cultural Diversity - [C]; Humanities and Fine Arts – [HU]

MHL153 - Rock Music and Culture
LEC  3 Credits  3 Periods
History of Rock music and how cultural, social, political, and economic conditions have shaped its evolution. Prerequisites: None. General Education Designation: Historical Awareness - [H]; Humanities and Fine Arts – [HU]

MARKETING (MKT)
MKT101 – Introduction to Public Relations
LEC  3 Credits  3 Periods
Emphasizes public relations techniques used both within and outside the business organization, including operation of a PR counseling firm. Prerequisites: None.

MKT109 – Introduction to Fashion Merchandising
LEC  3 Credits  3 Periods
Explores the various levels and specialized segment of the fashion industry, the principles of fashion, the fundamentals of merchandising apparel, consumers’ influence on demand and marketing activities. Prerequisites: None.

MKT110 – Marketing and Social Networking
LEC  3 Credits  3 Periods
Theory and practice in the use of social media in marketing. Topics may include a history of social media, preparation for social marketing, the power of collective influence, and how to engage with social media. Reviews social mediums, social networks, platforms and other marketing tools used to create a social media campaigns. Prerequisites: None.

MKT151 Display and Visual Merchandising
LEC + LAB  3 Credits  4 Periods
An examination of the principles of design including line, color, balance, and texture as they relate to the display of merchandise. Participation in displays, field trips, and individual projects. Prerequisites: None

MKT263 - Advertising Principles
LEC  3 Credits  3 Periods
Introduces the advertising function within business, including media study, creative strategies, and advertising campaigns. Prerequisites: None. MKT 271 recommended, but not required.

MKT267 - Principles of Salesmanship
LEC  3 Credits  3 Periods
Analyzes and applies the steps and techniques used in personal selling. Highlights the role of the professional sales representative and his/her functions as they relate to the company’s mission and customer expectations. Prerequisites: None.

MKT268 - Merchandising
LEC  3 Credits  3 Periods
Surveys structure and operation of retail organizations. Emphasizes merchandising to include price, location, time promotion and quantity. Prerequisites: None. MKT271 suggested but not required.

MKT271 - Principles of Marketing
LEC  3 Credits  3 Periods
An analysis of the marketing process and environment with regard to the product, pricing, distribution, and communication in order to satisfy buyer needs. Prerequisites: None.

MKT273 – Marketing Research
LEC  3 Credits  3 Periods
Planning and preparing for a marketing research effort and presentation of research findings in a professional manner. Includes the study of problem definition, sampling methods, statistical analysis, presentation techniques, and evaluation of data. Prerequisites: MKT271, or permission of instructor.

MKT280AA-AC
LEC + LAB  1-3 Credits  1-3 Periods
Marketing work experience in a business or industry. 80 hours of designated work per credit. Maximum of 8 credits allowed. Prerequisites: Departmental approval.

MICROCOMPUTER TECHNOLOGY (MST)
MST140 - Microsoft Networking Essentials
LEC + LAB  3 Credits  4 Periods
Emphasis on local area network with overview of wide area networks. Includes terminology, hardware and software components, connectivity, network architecture, packet structure, topologies, communication standards and protocols, and security issues. Preparation for Microsoft certification examination. Prerequisites: None. (BPC110 or CIS105, and BPC121AB) suggested but not required.

MST150 - Microsoft Windows Professional
LEC + LAB  3 Credits  4 Periods
Knowledge and skills necessary to perform day-to-day administration tasks in a Microsoft Windows based network. Preparation for Microsoft certification examination. Prerequisites None. CIS190, or CNT140, or MST140 suggested but not required.

MST150EI – Configuring Windows 8
LEC + LAB  3 Credits  4 Periods
In-depth exploration of how to effectively install and configure Windows 8. Includes features of Windows 8, virtualization with Hyper-V, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. Designed to prepare students for the Microsoft Windows 8 certification examination (70-687). Prerequisites: MST140, or CNT140++, or permission of Instructor.

MST150SV - Microsoft Windows 7 Configuration
LEC + LAB  3 Credits  4 Periods
Knowledge and skills necessary to perform installation and day-to-day administration and support of the Microsoft Windows 7 operating system. Prerequisites: None. CIS190, or CNT140AA, or MST140 suggested but not required. Course Notes: Preparation for Microsoft certification examination 70-680.

MST150XP - Microsoft Windows XP Professional
LEC + LAB  3 Credits  4 Periods
Knowledge and skills necessary to perform day-to-day administration tasks of Microsoft Windows XP Professional. Preparation for Microsoft certification examination Prerequisites: None. CIS190, or CNT140, or MST140 suggested but not required.

MST155DB – Configuring Advanced Windows Server Services
LEC + LAB  4 Credits  5 Periods
In-depth exploration of how to effectively install and configure Windows Server. Designed to prepare students for the Microsoft Configuring Advanced Windows Server Services examination (70-412). Prerequisites: MST158++ or permission of Instructor. Course Notes: Recommend that prerequisite course completed was for the same version of Windows server as will be taught in this course.

MST157DA - Active Directory Windows Server Configuration
LEC + LAB  4 Credits  5 Periods
Information and skills necessary to install, configure and administer Active Directory service. Covers tasks required to create users and groups, and to implement Group Policies which provide centralized management of users and computers. Prerequisites: Any MST course or permission of Instructor. Course Notes: MST157DA is a preparation for the Microsoft 70-640 professional certification test.

MST158DB – Installing and Configuring Windows Server
LEC + LAB  4 Credits  5 Periods
In-depth exploration of how to effectively install and configure Windows Server. Includes roles and features of Server, virtualization with Hyper-V, core network services, Active Directory, and Group Policy. Designed to prepare students for the corresponding Microsoft Windows Server Installation and Configuration examination (70-410). Prerequisites: (MST140 or CNT140++) and MST150++, or permission of Instructor.

MUSIC: THEORY/COMPOSITION (MTC)

MTC101 - Introduction to Music Theory
LEC  3 Credits  3 Periods
Designed to develop written and aural skills necessary for advanced study of music theory and skills. Recommended for music majors. Prerequisites: None.

MTC105 - Music Theory I
LEC  3 Credits  3 Periods
The chronological study of music theory including: harmony, melody, texture, structure and timbre through analysis, original compositions and basic exercises to demonstrate musical concepts. Prerequisites: MTC100 or MTC101 or permission of instructor; Co-requisites: MTC106.

MTC106 - Aural Perception I
LEC + LAB  1 Credit  2 Periods
The development of listening and performing skills through dictation, sight singing and keyboard harmony. Co requisites: MTC105.

MTC130 - Jazz Theory
LEC  2 Credits  2 Periods
Develop written and aural theory skills necessary in the jazz idiom. Prerequisites: (MTC101 and MTC103), or permission of Instructor. Course Notes: MTC130 is recommended for students taking jazz improvisation, jazz composition and jazz combo.

MTC155 - Music Theory II
LEC  3 Credits  3 Periods
A continuation of Music Theory I with emphasis on harmony and part-writing procedures. Prerequisites: MTC105. Co requisites: MTC156.

MTC156 - Aural Perception II
LEC + LAB  1 Credit  2 Periods
A continuation of Aural Perception I, including harmonic practices. Prerequisites: None. Co requisites: MTC155.

MUSIC: COMMERCIAL/BUSINESS (MUC)

MUC109 - Music Business: Merchandising and the Law
LEC  3 Credits  3 Periods
Operation, scope, and career opportunities in the music business. Focuses on music in the marketplace, songwriting, publishing, copyright procedures, and business affairs, agents, artist management, and concert production. Prerequisites: None.

MUC110 - Music Business: Recording and Mass Media
LEC  3 Credits  3 Periods
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 - Digital Audio Workstation I (DAW I)
LEC + LAB  3 Credits  5 Periods
Use of digital mixing and automation software in conjunction with editing and recording. Includes computer operation, troubleshooting, and file management. Prerequisites: MUC195 or MUC195AA.

MUC195 - Studio Music Recording I
LEC + LAB  3 Credits  5 Periods
Basic principles of studio sound recording. Emphasis on musical acoustics, operation of recording equipment, studio setups, and multitrack recording. Includes studio session process and musical production decisions. Prerequisites: None.

MUC196 - Studio Music Recording II
LEC + LAB  3 Credits  6 Periods
Emphasis on signal-processing equipment, mixing consoles, and advanced musical recording session procedures, production, and engineering. Includes mix-down and resultant master tape of a musical recording session. Prerequisites: MUC195 or MUC195AA.

MUC209 - Music Industry Entrepreneurship
LEC  3 Credits  3 Periods
Operation, scope, and career opportunities in the music business. Focuses on music in the areas of entrepreneurship, visionary development and the collaboration process. Prerequisites: MUC109 and MUC110 or permission of Instructor.

MUC290AA – Music Business Internship
LEC + LAB  1 Credit  1 Period
Music Business Internship work experience. Perform a variety of activities, to fulfill the routines and responsibilities of the department or business where the internship is served. Eighty (80) hours of designated work per credit. Prerequisites: Permission of Department or Division. Course Notes: MUC290AA may be repeated for a total of twelve (12) credit hours.

MUC295AA - Self Promotion for Music
LEC  1 Credit  1 Period
Career goal development. Includes self-presentation and communication skills, keeping files and records, and developing self-promotional materials. Prerequisites: None.

MUC297AA - Music Internship
LEC + LAB  2 Credits  2 Periods
Music Internship work experience in a business or industry. Eighty (80) hours of designated work per credit. A maximum of 12 credits allowed. Prerequisites: MUC110.

MUC298AA-AC – Special Projects
LAB  1 Credit  1 Period
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or Instructor.

MUSIC: PERFORMANCE (MUP)
MUP101AA-CJ - Private Instruction
LEC + LAB  1 Credit  .6 Periods
Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for Credit. Prerequisites: None. Editors Note: See online course catalog for additional private instruction course descriptions.

MUP102AA-CJ - Private Instruction
LEC + LAB  2 Credits  1.2 Periods
Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for Credit. Prerequisites: None. Editors Note: See online course catalog for additional private instruction course descriptions.

MUP110 - Concert Music
LEC  0.50 Credits  0.50 Periods
Attendance at concerts, recitals and music Lectures on and off campus. Required each semester for all music majors. Prerequisites: None

MUP131 - Class Piano I
LEC + LAB  2 Credits  3 Periods
Development of beginning piano techniques and fundamentals of music including basic hand position, music reading skills of melodic and harmonic material, major scales, transposition, and harmonization's including the I, IV, V7 chords. Prerequisites: None.

MUP132 - Class Piano II
LEC + LAB  2 Credits  3 Periods
Continuation of Piano I with emphasis on elementary piano techniques including major and minor scales, transposition, improvisation, and sight reading. Prerequisites: MUP 131 or permission of instructor.

MUP133 - Class Voice I
LEC + LAB  2 Credits  3 Periods
Introduction to the fundamentals of vocal production. Emphasis on breathing techniques, tone production and
MUP160 - Orchestra
LEC + LAB 2 Credits 5 Periods
A class designed to emphasize orchestral ensemble techniques and the preparation of all styles of orchestral literature. Public performances are scheduled during the year. Prerequisites: None. Course Notes: MUP160 may be repeated for credit. Auditions may be required.

MUP161 - Community Band
LEC + LAB 1 Credit 3 Periods
Emphasis on college/community participation and the preparation of band literature for public performance. Auditions may be required. May be repeated for Credit. Prerequisites: None.

MUP163 - Jazz Ensemble
LEC + LAB 1 Credit 3 Periods
Practical and performance experience in various jazz styles. Open to all students on the basis of auditions. May be repeated for Credit. Prerequisites: None.

MUP164 - Jazz Improvisation I
LEC 2 Credits 3 Periods
Theoretical and performance skills in many styles of jazz improvisation. May be repeated for a total of six (6) credit hours. Prerequisites: None.

MUP168 - Mariachi Band
LEC + LAB 1 Credit 3 Periods
Emphasis on college and community participation and the preparation of mariachi band literature for public performance. Auditions may be required. Prerequisites: None. MUP181 - Chamber Music Ensembles
LEC + LAB 1 Credit 2 Periods
Practical and performance experience in instrumental, vocal, and mixed ensembles. Prerequisites: None Course Notes: MUP181 may be repeated for credit.

MUP217 - Music Theatre: Broadway Solos
LEC + LAB 2 Credits 3 Periods
Study and in-class performance of scenes and solos from Broadway musical literature. Prerequisites: None. Course Notes: MUP217 may be repeated for credit.

MUP218 - Audition Tech: Music Theater
LEC + LAB 1 Credit 3 Periods
Practice in the techniques of auditioning for musical theater. Identification and illustration techniques of the vocal and acting music theater audition. Prerequisites: None.

MUP225 - Class Guitar I
LEC + LAB 2 Credits 3 Periods
Emphasis on note-reading and folk-style harmonic accompaniment. Includes finger-style laying. Stresses development of efficient practicing techniques and proper sitting and hand positions. Prerequisites: None.

MUP226 - Class Guitar II
LEC + LAB 2 Credits 3 Periods
Note-reading range including second position and parts of higher positions. Classical, popular, Latin, and other styles of music. Theory including scales, keys, and chord construction. Technical exercises of both hands. Prerequisites: MUP225 or permission of instructor.

MUP231 - Class Piano III
LEC + LAB  2 Credits  3 Periods
Development of intermediate piano techniques including selected solo literature, transposition of harmonic patterns, and secondary dominants. Prerequisites: MUP132 or permission of instructor.

MUP232 - Class Piano IV
LEC + LAB  2 Credits  3 Periods
Continuation of Piano III including modulation techniques, improvisation of piano accompaniments, advanced chromatic harmony, and sight reading of advanced literature. Prerequisites: MUP231 or permission of instructor.

MUP233 - Class Voice III
LEC + LAB  2 Credits  3 Periods
Interpretive singing through a closer examination of coloring, tone production, dynamics, and tempo indications. Prerequisites: MUP134.

MUP234 - Class Voice IV
LEC + LAB  2 Credits  3 Periods
Emphasis on the preparation of solo vocal literature for the purpose of evaluation and the integration of the music with the drama of the music. Prerequisites: MUP233 or permission of instructor. Course Notes: MUP234 may be repeated for credit.

NAVAJO (NAV)
NAV101 - Elementary Navajo I
LEC  4 Credits  4 Periods
Basic grammar, pronunciation, and vocabulary of the Navajo language. Practice of listening, speaking, reading, and writing skills. Includes the study of the Navajo culture with participation in an off-campus Navajo cultural event. Prerequisites: None.

NAV102 - Elementary Navajo II
LEC  4 Credits  4 Periods
Continued study of grammar, pronunciation, and vocabulary of the Navajo language. Emphasis on listening, speaking, reading, and writing skills. Prerequisites: NAV101 or permission of department. Course Note: Includes the study of the Navajo culture with participation in an off-campus Navajo cultural event.

NAV113 – Beginning Navajo Conversation I
LEC  3 Credits  3 Periods
Beginning conversational Navajo with emphasis on basic listening and speaking skills, including basic pronunciation, vocabulary, sentence structure, and cultural awareness. Prerequisites: None.

PHYSICAL EDUCATION (PED)
PED101BA - Baseball
LEC + LAB  1 Credit  2 Periods
Basic skills and game strategy of baseball. Class emphasis on competition and drills. Prerequisites: None.

PED101BB - Basketball
LEC + LAB  1 Credit  2 Periods
Basic skills and game strategy of basketball. Class emphasis on competition and drills. Prerequisites: None. Course Note: PED101BB may be repeated for credit.

PED101BC - Boot Camp
LEC + LAB  1 Credit  2 Periods
Vigorous physical and mental conditioning incorporating cardiovascular, core fitness, strength training, and flexibility. Emphasis will be placed on proper body mechanics and safety. Prerequisites: None. Note: PED101BC may be repeated for credit.

PED101FL - Fitness for Life
LEC + LAB  1 Credit  2 Periods
Learn the basics of designing and implementing a personalized fitness program to meet your needs in the areas of Cardiovascular Fitness, Weight Control, Muscular Strength and Flexibility. Prerequisites: None. Course Note: PED101FL may be repeated for credit.

PED101GO - Golf
LEC + LAB  1 Credit  2 Periods
Instruction and practice for all skill levels, beginning through advanced. Assistance on shot making, club selection and etiquette on the course. Prerequisites: None. Course Note: PED101GO may be repeated for credit.

PED101KA - Karate
LEC + LAB  1 Credit  2 Periods
Training emphasizes fundamentals, traditional form, and applied sparring that follows the theory of Karate. Prerequisites: None. Course Note: PED101KA may be repeated for credit.

PED101KB - Kickboxing
LEC + LAB  1 Credit  2 Periods
Techniques to increase muscular endurance and strength, enhance flexibility and increase body awareness and self-confidence. Jabs, kicks, and blocks will be used in this martial arts based workout. Prerequisites: None. Course Note: PED101KB may be repeated for credit.

PED101PC – Physical Conditioning
LEC + LAB  1 Credit  2 Periods
Exercise program with access to free weights, strength machines and cardio equipment. Prerequisites: None. Course Notes: PED101PC may be repeated for credit.

PED101PS - Pilates
LEC + LAB  1 Credit  2 Periods
Mat-based exercise system focused on improving flexibility.
and strength for the total body. Teaches core control and stabilization while improving postural alignment. Prerequisites: None. Course Note: PED101PS may be repeated for credit.

PED101SB - Softball
LEC + LAB 1 Credit 2 Periods
Basic skills and game strategy of softball. Class emphasis on competition and drills. Prerequisites: None. Course Notes: PED101SB may be repeated for credit.

PED101SO - Soccer
LEC + LAB 1 Credit 2 Periods
Basic skills and game strategy of soccer. Class emphasis on competition and drills. Prerequisites: None. Course Note: PED101SO may be repeated for credit.

PED101ST – Strength Training
LEC + LAB 1 Credit 2 Periods
Introduction to techniques of basic weight training, concentrating on incorporating an exercise regimen for increased strength. Prerequisites: None. Course Notes: PED101ST may be repeated for credit.

PED101VB - Volleyball
LEC + LAB 1 Credit 2 Periods
Basic skills and game strategy of volleyball. Class emphasis on competition and drills. Prerequisites: None. Course Note: PED101VB may be repeated for credit.

PED101WT - Weight Training
LEC + LAB 1 Credit 2 Periods
Access to Olympic and Free Weights with a qualified instructor. Prerequisites: None. Course Note: PED101WT may be repeated for credit.

PED101YO - Yoga
LEC + LAB 1 Credit 2 Periods
Promotion of overall health by strengthening muscles and stimulating glands and organs. Basic postures, breathing and relaxation techniques. Prerequisites: None. Course Note: PED101YO may be repeated for credit.

PED101ZU - Zumba® Fitness
LEC + LAB 1 Credit 2 Periods
Zumba® dynamic fitness program. Features high energy, easy to follow rhythmic moves set to energizing Latin and international beats. Provides an enjoyable way to increase fitness level. Prerequisites: None. Course Notes: PED101ZU may be repeated for a total of (4) credit hours.

PED102 - Physical Activities: Intermediate
LEC + LAB 1 Credit 2 Periods
Individual, dual, or team sports activities at the intermediate level. Prerequisites: None. Prior experience recommended.

PED102BA - Baseball: Intermediate
LEC + LAB 1 Credit 2 Periods
To improve upon basic skills and game strategy of baseball at the intermediate level. Class emphasis on competition and drills. Prerequisites: None. Prior experience recommended. Course Note: PED102BA may be repeated for credit.

PED102BB - Basketball - Intermediate
LEC + LAB 1 Credit 2 Periods
To improve upon basic skills and game strategy of basketball at the intermediate level. Class emphasis on competition and drills. Prerequisites: None. Prior experience recommended.

PED102BC - Boot Camp - Intermediate
LEC + LAB 1 Credit 2 Periods
Vigorous training at an intermediate level incorporating cardiovascular, core fitness, strength training, and flexibility. Emphasis will be placed on proper body mechanics and safety. Prerequisites: None. Prior experience recommended. Course Note: PED102BC may be repeated for credit.

PED102GO - Golf - Intermediate
LEC + LAB 1 Credit 2 Periods
Improving techniques of putting, chipping, the full swing, rules and scoring will be covered in this class. Prerequisites: None. Prior experience recommended. Course Note: PED102GO may be repeated for credit.

PED102SB - Softball - Intermediate
LEC + LAB 1 Credit 2 Periods
Improve upon basic skills and game strategy of softball at the intermediate level. Class emphasis on competition and drills. Prerequisites: None. Course Note: PED102SB may be repeated for credit.

PED102SO - Soccer - Intermediate
LEC + LAB 1 Credit 2 Periods
To improve upon basic skills and game strategy of soccer at the intermediate level. Class emphasis on competition and drills. Prerequisites: None. Prior experience recommended. Course Note: PED102SO may be repeated for credit.

PED102ST – Strength Training – Intermediate
LEC + LAB 1 Credit 2 Periods
Intermediate techniques of strength training, concentrating on incorporating an exercise regimen for increased strength and endurance. Not recommended for the beginning weight lifter. Prerequisites: None. Prior experience recommended. Course Notes: PED102ST may be repeated for credit.

PED102WT - Weight Training - Intermediate
LEC + LAB 1 Credit 2 Periods
Increase knowledge and training with a qualified instructor on the use of Olympic and Free Weights. Prerequisites: None. Prior experience recommended. Course Notes: PED102WT may be repeated for credit.

PED102YO - Yoga - Intermediate
LEC + LAB 1 Credit 2 Periods
Yoga for the experienced practitioner. Prerequisites: None. Prior experience recommended. Course Note: PED102YO may be repeated for credit.
Principles and training techniques of strength and conditioning for sport performance. Emphasis is placed on instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; anaerobic and aerobic capacity. Prerequisites: None. Course Notes: PED124 may be repeated for a total of eight (8) credit hours.

PED201GO - Golf - Advanced
LEC + LAB 1 Credit 2 Periods
Experienced golfers gain helpful hints and practice to improve their game. Prerequisites: None. Prior experience at competitive level recommended. Course Note: PED201GO may be repeated for credit.

PED201VB – Volleyball - Advanced
LEC + LAB 1 Credit 2 Periods
Improve upon intermediate skills and game strategy of volleyball at the advanced level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. Course Note: PED201VB may be repeated for credit.

PED201WT – Weight Training - Advanced
LEC + LAB 1 Credit 2 Periods
Advanced level training with a qualified instructor on the use of Olympic and Free Weights. Prerequisites: None. Prior experience at competitive level recommended. Class Notes: PED201WT may be repeated for credit.

PED202SB – Softball - Elite
LEC + LAB 1 Credit 2 Periods
Improve upon advanced skills and game strategy of softball at the elite level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. Class Notes: PED202SB may be repeated for credit.

PED202SO – Soccer - Elite
LEC + LAB 1 Credit 2 Periods
Improve upon advanced skills and game strategy of soccer at the elite level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. Class Notes: PED202SO may be repeated for credit.

PHILOSOPHY (PHI)

PHI101 - Introduction to Philosophy
LEC 3 Credits 3 Periods
General consideration of human nature and the nature of the universe. Knowledge, perception, freedom, and determinism, and the existence of God. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]

PHI103 - Introduction to Logic
LEC 3 Credits 3 Periods
Informal logic, logical fallacies, elementary symbolic logic,
PHARMACY TECHNOLOGY (PHT)

PHT120 – Pharmacy Technician Responsibilities
LEC 3 Credits 3 Periods
Responsibilities and skills of pharmacy technicians. Emphasis on federal and state laws, prescription entry and fulfillment, drug regulations, and drug calculations, as well as pharmaceutical products, abbreviations, and terminology. Includes inventory management, administration routes, financial issues, and pharmacy environments. Prerequisites: None

PHYSICS (PHY)

PHY101 - Introduction to Physics
LEC 4 Credits 3 Periods
LAB 0 Credits 3 Periods
A survey of physics emphasizing applications of physics to modern life. Prerequisites: Grade of “C” or better in MAT090, or MAT091, or MAT092, or MAT093, or equivalent, or satisfactory score on Math Placement exam. Course Note: Students may receive credit for only one of the following: PHY101 or PHY101AA.

PHY111 - General Physics I
LEC 4 Credits 3 Periods
LAB 0 Credit 3 Periods
Includes motion, energy, and properties of matter. Prerequisites: MAT182, or MAT 187, or one year high school Trigonometry with a grade of C or better, or permission of Department or Division. Course Note: PHY111 is recommended for preprofessional and suggested for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111AA. General Education Designation: Natural Sciences (Quantitative) - [SQ]

PHY112 - General Physics II
LEC 4 Credits 3 Periods
LAB 0 Credit 3 Periods
Includes electricity, electromagnetism, and modern physics. Prerequisites: PHY105 or PHY111. General Education Designation: Natural Sciences (Quantitative) - [SQ]

PHI105 - Introduction to Ethics
LEC 3 Credits 3 Periods
A survey of ethical theory in Western Philosophy, including the major normative theories and selected metaethical theories. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]

PHI213 - Medical and Bio-Ethics
LEC 3 Credits 3 Periods
A philosophical consideration of moral problems that arise in relation to medicine and biology, e.g., death, patient’s rights and biological experimentation. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]

PHI216 – Environmental Ethics
LEC 3 Credits 3 Periods
Philosophical consideration of diverse theories and perspectives on the environment, and application of these theories to global moral issues such as animal rights, preservation of wilderness and species, population, world hunger and poverty, and air and water pollution. Prerequisites: None. General Education Designation: Humanities and Fine Arts – [HU]

PHI218 - Philosophy of Sexuality
LEC 3 Credits 3 Periods
Philosophical examination of sexuality in human life. Historical and critical survey of philosophical and theological views. Comparison and evaluation of contemporary theories about the nature of sexual desire and sexual acts. Implications of theories for contemporary moral problems. Prerequisites: None. General Education Designation: Humanities and Fine Arts – [HU]; Literacy and Critical Inquiry - [L]

PHI251 – Philosophy of Sport
LEC 3 Credits 3 Periods
General consideration of sport in its philosophical dimensions. Possible topics include the Zen of sport, strategy and competition, sport, practice, and play, and cheating versus fair play Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]

PHYSICAL SCIENCE (PHS)

PHS110 - Fundamentals of Physical Science
LEC 4 Credits 3 Periods
LAB 0 Credit 3 Periods
Survey of the principles of physics and chemistry. Prerequisites: Grade of “C” or better in MAT090, or MAT091, or MAT092, or MAT093, or equivalent, or satisfactory score on Math placement exam. General Education Designation: Natural Sciences (Quantitative) - [SQ]
PSY101 - Introduction to Psychology

LEC  3 Credits  3 Periods
To acquaint the student with basic principles, methods and fields of Psychology such as learning, memory, emotion, perception, physiological, developmental, intelligence, social and abnormal. Prerequisites: None. General Education Designation: Social and Behavioral Sciences - [SB]

PSY250 - Social Psychology

LEC  3 Credits  3 Periods
The scientific study of how people's thoughts, feelings, and behaviors are influenced by other people and situations. Includes how we think about ourselves and others, persuasion and influence, sexual and romantic attraction, friendship and helping others, aggression and prejudice. Prerequisites: PSY101 with a grade of "C" or better or permission of the instructor. General Education Designation: Social and Behavioral Sciences - [SB]
PSY258 - Domestic Problems and Crisis  
LEC  3 Credits  3 Periods  
Acquaints personnel in Law Enforcement and related fields with techniques and agencies of domestic intervention. Considers such topics as family fights, child abuse, suicide, death, drug abuse and runaways. Prerequisites: PSY101 with a grade of “C” or better or permission of instructor.

PSY266 - Abnormal Psychology  
LEC  3 Credits  3 Periods  
Distinguishes between normal behavior and psychological disorders. Subjects may include stress disorders, problems with anxiety and depression, unusual and abnormal sexual behavior, schizophrenia and addictive behaviors. Causes and treatments of psychological problems and disorders are discussed. Prerequisites: PSY101 with a grade of “C” or better, or permission of instructor.

PSY277 - Psychology of Human Sexuality  
LEC  3 Credits  3 Periods  
Survey of psychological and physiological aspects of human sexual behavior. Emphasis placed on the integration of the cognitive, emotional, and behavioral factors in sexual functioning. Prerequisites: PSY101 with a grade of “C” or better, or permission of instructor. Student must be 18 years or older.

PSY290AB - Research Methods  
LEC  4 Credits  3 Periods  
LAB  0 Credits  3 Periods Planning, execution, analysis, and written reporting of psychological research using American Psychological Association guidelines (APA). Surveys the literature, procedures, and instruments in representative areas of psychological research. Prerequisites: ENG101, ENG107. Prerequisites or Corequisites: PSY230 with a grade of “C” or better, or permission of Instructor.

PSY298AC - Special Projects  
LAB  3 Credits  3 Periods  
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or instructor.

READING (RDG)  
RDG008 - Phonics  
LEC  3 Credits  3 Periods  
Designed for students who are learning English as a second language. Includes the study of the speech sounds used in English as represented by the written symbols of the alphabet; recognition of spelling patterns and resulting pronunciation; and diacritical markings. Prerequisites: Reading placement score (CELSA) or permission of instructor.

RDG010 - Reading English as a Second Language I  
LEC  3 Credits  3 Periods  
Designed for students who are learning English as a second language. Provides students with skills needed to become proficient readers in English. Teaches sound symbol relationships of the English alphabet. Expands essential vocabulary for daily communication both in isolation and context. Includes development of reading comprehension skills. Prerequisites: Appropriate ESL placement test score.

RDG013 - Spelling Development for ESL Speakers (Non-native Speakers)  
LEC  3 Credits  3 Periods  
Study of basic English spelling principles with emphasis on common spelling errors due to mispronunciation. Examines symbol relationships of homonyms, homophones, homographs, and contractions. Creating personalized mnemonic techniques to spell problem words. Prerequisites: RDG001 with grade of “C” or better, or permission of instructor.

RDG016 - Reading English as a Second Language I  
LEC  3 Credits  3 Periods  
Designed for students who are learning English as a second language. Skills needed to become proficient readers in English. Sound symbol relationships of the English alphabet. Essential vocabulary for daily communication both in isolation and context. Development of reading comprehension skills. Prerequisites: Appropriate ESL placement test score.

RDG020 - Reading English as a Second Language II  
LEC  3 Credits  3 Periods  
Designed for students who are learning English as a second language. Includes continued development of vocabulary and reading comprehension skills. Prerequisites: Appropriate ESL placement test score or grade of “C” or better in RDG010 or permission of instructor.

RDG026 - Reading English as a Second Language II  
LEC  3 Credits  3 Periods  
Designed for students who are learning English as a second language. Continued development of vocabulary and reading comprehension skills. Prerequisites: Appropriate ESL placement test score, or grade of “C” or better in ESL/RDG016, or permission of Instructor.

RDG030 - Reading English as a Second Language III  
LEC  3 Credits  3 Periods  
Designed for students who are learning English as a second language. Includes instruction for more advanced vocabulary and reading comprehension skills. Prerequisites: Appropriate ESL placement test score or grade of “C” or better in RDG020 or permission of instructor.

RDG031 - Advanced Vocabulary for ESL Speakers (Non-native Speakers)  
LEC  3 Credits  3 Periods  
Designed to expand and improve reading vocabulary skills.
Emphasis on understanding advanced vocabulary in both context and isolation through practice and review. Vocabulary building strategies which will aid in ongoing study of words. Emphasis on both learning and using more advanced vocabulary effectively. Prerequisites: RDG020 with grade of C or better, or permission of instructor.

Course Note: Recommended for reading students at ESL Levels III and IV.

RDG036 - Reading English as a Second Language III
LEC 3 Credits 3 Periods
Designed for students who are learning English as a second language. Instruction for more advanced vocabulary and reading comprehension skills. Prerequisites: Appropriate ESL placement test score, or grade of “C” or better in ESL/RDG026, or permission of Instructor.

RDG040 - Reading English as a Second Language IV
LEC 3 Credits 3 Periods
Developed for students of English as a second language. Includes development of advanced vocabulary, comprehension skills, and culture awareness. Prerequisites: Appropriate ESL placement test score, or grade of “C” or better in RDG030 or permission of instructor.

RDG046 - Reading English as a Second Language IV
LEC 3 Credits 3 Periods
Developed for students of English as a second language. Development of advanced vocabulary, comprehension skills, and culture awareness. Prerequisites: Appropriate ESL placement test score, or grade of “C” or better in ESL/RDG036, or permission of Instructor.

RDG071 - Basic Reading
LEC 3 Credits 3 Periods
Provide opportunities for practice and application of basic reading skills. Includes phonetic analysis, word recognition, structural analysis, use of context clues, and use of dictionary, reinforced through practical application. Development of vocabulary required for success in content area courses. Emphasis on literal comprehension and development of inferential interpretation. Prerequisites: Appropriate reading placement test score, or grade of “C” or better in RDG040. Course Note: Recommended for all students with limited reading experiences.

RDG081 - Reading Improvement
LEC 3 Credits 3 Periods
Designed to improve basic reading skills. Includes word recognition, interdisciplinary vocabulary development, recognizing patterns of organization, interpreting inference. Reviews interpreting graphic materials. Emphasis on identifying main ideas and related details. Prerequisites: Appropriate reading placement test score, or grade of “C” or better in RDG071.

RDG091 - College Preparatory Reading
LEC 3 Credits 3 Periods
Designed to improve basic reading and study skills, vocabulary and comprehension skills. Prerequisites: Appropriate reading placement test score, or grade of “C” or better in RDG081 or permission of Instructor.

Course Notes: RDG091 is recommended to all students whose placement test scores indicate a need for reading instruction.

RDG095 - Intensive Foundations for College Reading
LEC 6 Credits 6 Periods
Accelerated format to improve basic reading skills, study skills, and information literacy skills including vocabulary development, main idea identification, patterns of organization recognition, and comprehension improvement. Prerequisites: Appropriate reading placement test score, or a grade of “B” or better in RDG071, or permission of Instructor. Course Notes: RDG095 is an accelerated and intensive learning program for students and meets the requirements for RDG081 and RDG091 in one semester.

RDG100 - Successful College Reading
LEC 3 Credits 3 Periods
Emphasis on reading study strategies for any introductory class in any subject area. Introduction to Learning Management System (LMS), how to successfully read course textbooks and assessments, how to navigate information technology and development of academic vocabulary. Prerequisites: A grade of C or better in RDG081 or appropriate reading placement score or permission of Instructor. Corequisites: Any 100-level course in another content area or permission of Instructor.

REAL ESTATE PRINCIPLES (REA)
REA179 – Real Estate Principles I
LEC 3 Credits 3 Periods
Basics of real estate principles including introduction to the profession and license law, definition of real property, legal descriptions, rights and interests in property, ownership, contracts, real estate economics, financing and foreclosure, land use, and valuation. Prerequisites: None.

REA180 Real Estate Principles II
LEC 3 Credits 3 Periods
Advanced work in real estate including escrow procedures and title insurance, liens and encumbrances, advanced contracts, water rights, toxic waste and environmental hazards, agency, ethics and professional relationships, real estate code and the Commissioner’s rules, investment, property management, and government restrictions. Prerequisites: REA179 or permission of instructor.

REA201 - Real Estate Principles I and II
LEC 6 Credits 6 Periods
Comprehensive survey of real estate principles to include careers in real estate, nature and description of real estate, rights and interests in land, forms of real property ownership, forms of business organization, methods of title transfer, title search and insurance, contract law, real estate sales contracts, mortgage and notes payable, deeds of trust, lending practices, loans and consumer rights, sources of
financing real estate loans, types of financing instruments, real property taxes and assessments, title closing, escrow and settlement procedures, property management and real estate leases, real estate appraisal, state licensing laws and professional affiliations, real estate brokerage, real estate agency, fair housing and equal credit laws, types of residential real estate, real property insurance, land use control, economics of real estate, and investment considerations. Prerequisites: None. Course Note: This course is intended to satisfy the state of Arizona’s requirement for 90 hours of prelicensure education. Students must attend all scheduled class meetings to meet the State’s attendance requirement.

REA290AH - Real Estate Seminar: Contract Writing
LEC 0.50 Credits 0.50 Periods
Contract writing skills, techniques, and requirements. Writing of basic real estate contracts, including purchase offers, counter offers, sales listing agreements, and riders. Prerequisites: None.

RECREATION (REC)
REC120 – Leisure and the Quality of Life
LEC 3 Credits 3 Periods
Overview of the historical, psychological, social, and cultural aspects of play, leisure, and recreation and the 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. General Education Designation: Social and Behavioral Sciences – [SB]

RELIGIOUS STUDIES (REL)
REL100 – World Religions
LEC 3 Credits 3 Periods
The development of various religions from the prehistoric to modern times. Political, economic, social and geographic relationships among world religions. Consideration of both Eastern and Western religions. Prerequisites: None General Education Designation: Global Awareness - [G]; Humanities and Fine Arts – [HU]

SMALL BUSINESS MANAGEMENT (SBS)
SBS200 - Small Business Operations
LEC 2 Credits 2 Periods
In-depth analysis of and individual plan development for the “day-to-day” problems encountered in the operation of a small business. Includes the development of an individual business operations plan including finance, purchasing, production scheduling, maintenance, shipping/receiving, personnel management and insurance/risk management requirements. Investigation of daily problems related to inventory control and business expansion. Prerequisites: None.

SBS202 - Small Business Bookkeeping and Tax Preparation
LEC 1 Credit 1 Period
Introduces accounting and record-keeping with emphasis on practical use of financial data for the successful management of a small business. Develops an understanding of the accounting cycle and preparation of financial statements. Includes section on tax consequences and preparation for small business owners. Designed for the non-financially oriented owner/manager of a small business. Prerequisites: None.

SBS203 - Financing and Cash Management For a Small Business
LEC 1 Credit 1 Period
Planning for and meeting the financial needs of the small business including cash flow planning, identification of financial needs and sources, equity and debt financing, and preparation of loan packages. Participants complete a financial plan for their individual company, with emphasis on cost controls, sales revenue projection, expense allocation, and inventory cost control. Day-to-day operational budgeting also included. Prerequisites: None.

SBS204 - Small Business Marketing and Advertising
LEC 2 Credits 2 Periods
Introduction to marketing and advertising strategies and methods including business image, target market analysis, and customer buying behavior profile. Analysis and selection of advertising/business promotion methods and timing. Methods of deciding product and market segment focus included. Design of an individual marketing and advertising/promotion plan. Prerequisites: None.

SBS211 - Small Business Computer Applications
LEC 1 Credit 1 Period
Hands-on opportunity for the small business owner to test several current computer application programs. Emphasizes practical applications, hardware and software purchasing decision criteria, and technological developments. Prerequisites: None.

SBS213 - Hiring and Managing Employees
LEC 1 Credit 1 Period
Methods and techniques for managing employees in a small business. Includes supervisor’s role, leadership styles, interpersonal communications, staff planning, employee work styles, techniques for handling problem employees, and employee motivation. Focuses on real life situations to enable the business owner to gain high performance from their employee team. Includes segment on hiring, new employee orientation, training, benefits, and developing future staffing needs assessment. Prerequisites: None.

SBS214 - Small Business Customer Relations
LEC 1 Credit 1 Period
Developing and improving customer relations for the small business. Planning and delivering quality customer service. Includes topics on attitude of employees, customer perceptions and motivations, handling customer dissatisfaction, and developing customer, supplier, vendor, and distributor...
SBS215 - Managing Stress in Small Business
LEC 1 Credit 1 Period
Explores the common causes of stress related to the operation of a small business. Includes discussion of the physiological and psychological effects of stress, and specific methods for dealing with the small business owner or manager stresses in business and personal life. Prerequisites: None.

SBS216 - Planning for a Small Business
LEC 2 Credit 2 Period
Relates business management issues to a specific small business through development of an individual study plan. Provides on-site review of business operation by trained instructor. Prerequisites: SBS200 and SBS204 or permission of instructor.

SBS217 - Starting/Managing a Home Business
LEC 1 Credit 1 Period
Analysis of the successful operation of a home-based business. Includes study of economic feasibility, practicality, and adjustments for the family. Analysis of the advantages/disadvantages of operating a home based business, versus a "store-front" business. Review of current trends in home business opportunities and franchises. Descriptions of home businesses that have succeeded in local, national, and international markets. Prerequisites: None.

SBS218 - Establishing an Import/Export Business
LEC 1 Credit 1 Period
Basic marketing and management techniques for exporting and importing. Includes researching viability of an import/export business, marketing an export or securing a product for import, and implementing the transaction. Prerequisites: None.

SBS220 - Internet Marketing for Small Business
LEC 2 Credits 2 Periods
Focuses on "e-Commerce"—doing business on the Internet and planning a website. Topics include: how the Internet can help growth and success of business; examples of successful marketing on the Internet; availability of Internet services; necessary hardware and software for marketing on the Internet; determining products/services appropriate for Internet marketing; budget constraints and on-going operations of the Internet site. Prerequisites: None.

SBS221 – Social Media Marketing for Small Business
LEC 2 Credits 2 Periods
Focuses on use of Social Media for Small Businesses and Entrepreneurs. Topics include: Use of Social Media, types of Social Media, how Social Media can help growth and success of business; examples of successful Social Media marketing, setting up and deploying various types of Social Media. Options for hardware and software for Social Media, determining products/services appropriate for Social Media, Monetization of Social Media. Budget constraints and on-going monitoring and content management of Social Media. Prerequisites: None.

SBS230 - Financial and Tax Management for Small Business
LEC 2 Credits 2 Periods
An overview of accounting and record-keeping for the successful management of a small business. Develops an understanding of the accounting cycle and preparation of financial statements. Includes section on tax consequences and the choice of legal entity choice based on taxation. Prerequisites: None.

SBS298AA - Special Projects
LAB 1 Credit 1 Period
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or instructor.

SOCIETY AND BUSINESS (SBU)
SBU200 – Society and Business
LEC 3 Credits 3 Periods
The study and scientific inquiry of issues and demands placed on business enterprise by owners, customers, government, employees and society. Included are social, ethical and public issues and analysis of the social impact of business responses. Prerequisites: None General Education Designation: Global Awareness - [G]; Social and Behavioral Sciences - [SB]

SIGN LANGUAGE (SLG)
SLG101 - American Sign Language I
LEC 4 Credits 4 Periods

SLG102 – American Sign Language II
LEC 4 Credits 4 Periods
Continued development of knowledge and language skills for communicating with deaf people who sign. Includes numbers, fingerspelling, and culture. Emphasis on enhancement of receptive sign skills and continued development of expressive sign skills. Application of rudimentary, syntactical, and grammatical structure stressed with continued development of sign vocabulary. Prerequisites: SLG101 with a grade of “C” or better, or permission of Department or Division. Completion of prerequisites within the last three years is required.

SLG201 – American Sign Language III
LEC 4 Credits  4 Periods
Linguistics of American Sign Language (A.S.L.) including non-manual behaviors and signing English idioms with conceptual accuracy. Emphasis on practical application of A.S.L. skills, expanded vocabulary, and cross-cultural communication. Prerequisites: SLG102 with a grade of C or better, or permission of Department or Division. Suggested but not required: (ENG101 or ENG107) and (CRE101, or CRE111, or exemption by score on the reading placement test (ASSET)). Completion of prerequisites within the last three years is required.

SOCIOLOGY (SOC)
SOC101 - Introduction to Sociology
LEC 3 Credits 3 Periods
The systematic study of social behavior and human groups, particularly the influence of culture, socialization, social structure, stratification, social institutions, differentiation by region, race, ethnicity, sex/gender, age, class, and socio-cultural change upon people's attitudes and behaviors. Prerequisites: None. General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN# 1101

SOC140 - Racial & Ethnic Relations
LEC 3 Credits 3 Periods
Examines how the social construction of race shapes social interaction and social institutions. Explores the consequences of power, privilege and oppression among major ethnic and racial groups in the United States. Prerequisites: None. General Education Designation: Social and Behavioral Sciences - [SB]; Cultural Diversity - [C] Arizona Shared Unique Number SUN# 2215

SOC157 - Sociology of Families and Relationships
LEC 3 Credits 3 Periods
Systemic analysis of socio-cultural and historical origins of modern families in the U.S. and their importance, major challenges and changing trends. Explores being single, dating and attraction, love, cohabitation and marriage, family planning and parenthood, conflict and crisis within the family, and divorce. Prerequisites: None.

SOC220 – Society and Business
LEC 3 Credits 3 Periods
Applies the sociological perspective to the study of sport. Emphasizes how hierarchies of race, class, and gender in the United States impact the sport experience of both the fan and the athlete, as well as how both professional and amateur sport have at times played a transformative role in society. Prerequisites: None General Education Designation: Social and Behavioral Sciences - [SB]

SOC251 - Social Problems

SOC2250
LEC 3 Credits 3 Periods
A sociological exploration of selected social problems and inequalities. Analyzes issues in health care, dependencies, crime/violence, inequalities in race/class/gender/region/age, family, education, work, the economy, population migration/immigration, the environment, war and global insecurity. Prerequisites: None. Arizona Shared Unique Number SUN# 2250

SPANISH (SPA)
SPA085AA - Speedy Spanish I
LEC 1 Credit 1 Period
Basic vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills. Prerequisites: None.

SPA085AB - Speedy Spanish II
LEC 1 Credit 1 Period
Intermediate development of vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills. Prerequisites: SPA085AA.

SPA085AC - Speedy Spanish III
LEC 1 Credit 1 Period
Advanced development of vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills. Prerequisites: SPA085AB.

SPA101 - Elementary Spanish I
LEC 4 Credits 4 Periods
Basic grammar, pronunciation and vocabulary of the Spanish language. Includes the study of the Spanish speaking cultures. Practice of listening, speaking, reading, and writing skills. Prerequisites: None Arizona Shared Unique Number SUN# 1101

SPA102 - Elementary Spanish II
LEC 4 Credits 4 Periods
Continued study of grammar and vocabulary of the Spanish language and study of the Spanish-speaking cultures. Emphasis on speaking, reading, and writing skills. Prerequisites: A grade of “C” or better in SPA085AA or permission of Department or Division. Arizona Shared Unique Number SUN# 1102

SPA115 - Beginning Spanish Conversation I
LEC 3 Credits 3 Periods
Basic pronunciation, vocabulary, sentence structures, and cultural awareness, necessary to develop speaking and listening skills in Spanish. Prerequisites: None.

SPA116 - Beginning Spanish Conversation II
LEC 3 Credits 3 Periods
Continued study of basic pronunciation, vocabulary, sentence structures, and a cultural awareness necessary to develop speaking and listening skills in Spanish. Prerequisites:
SPA115 or permission of department or division.

SPA117 - Health Care Spanish I
LEC  3 Credits  3 Periods
Basic conversational Spanish for health care workers or students. Emphasis on basic sentence structure, pronunciation and vocabulary used in health care settings. Prerequisites: None.

SPA117AA - Health Care Spanish I: Introduction
LEC  1 Credit  1 Period
Part one of basic medical terminology in Spanish for health care personnel or students. Emphasis on pronunciation and vocabulary needed in health care setting, including coverage of routine information gathered. Prerequisites: None.

SPA119 - Spanish for Educational Settings I
LEC  3 Credits  3 Periods
Basic conversational Spanish for teachers, counselors, administrators and other school personnel. Emphasis on basic sentence structure, pronunciation and vocabulary used in educational settings. Prerequisites: None.

SPA120 - Spanish for Educational Settings II
LEC  3 Credits  3 Periods
Basic conversational Spanish for teachers, counselors, administrators and other school personnel. Continuation of SPA119, expanding into secondary and post-secondary educational settings. Emphasis on basic sentence structure, pronunciation and vocabulary. Prerequisites: SPA119 or permission of department.

SPA201 - Intermediate Spanish I
LEC  4 Credits  4 Periods
Continued study of essential Spanish grammar and Spanish speaking cultures. Continued practice and development of reading, writing, and speaking skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish. Prerequisites: Grade of “C” or better in SPA102, or SPA102AA, or SPA111, or permission of Department or Division. General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN# 2201

SPA202 - Intermediate Spanish II
LEC  4 Credits  4 Period
Review of grammar, continued development of Spanish language skills with continued study of the Spanish speaking cultures. Prerequisites: A grade of “C” or better in SPA 201 or permission of Department or Division. Completion of prerequisites within the last three years is required. General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN# 2202

SPA296WA - Cooperative Education
LAB  1 Credit  5 Periods
Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student’s academic or career goals (student's present job may qualify); or permission of instructor. Co-requisites: Must be concurrently enrolled in at least one class which is related to student’s major or career interest or with permission of the instructor.

SPANISH HUMANITIES (SPH)

SPH245 – Hispanic Heritage in the Southwest
LEC  3 Credits  3 Period
A survey of Hispanic heritage in the Southwest. Cultural and social institutions and their contribution to the development of the region and its heritage. Prerequisites: None. General Education Designation: Cultural Diversity: [C]; General Education Designation: Humanities and Fine Arts - [HU]

SPECIAL PROJECTS

298AA-AC - Special Projects
LAB                       1-3 Credits 1-3 Periods/arranged
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. Note: Special Projects may be used under most disciplines. However, the student must communicate with the instructor of his/her class for assistance in having a special project section initiated.

SUSTAINABILITY/SCIENCES and the HUMANITIES (SSH)

SSH111 – Sustainable Cities
LEC  3 Credits 3 Periods
Introduction to the field of sustainability and exploration of the practices leading to the development of sustainable cities. Explores the concept of sustainable development of cities within local, regional, and global contexts.

STORYTELLING (STO)

STO100AA - How to Tell Traditional Stories
LEC  1 Credit  1 Period
Introduction to the art of storytelling. Finding, crafting and telling a traditional story in and out of class. Prerequisites: None

STO101 – Storytelling for Literacy
LEC  1 Credit  1 Period
Introduction to the natural process from oral to written language and the role of storytelling in both. Focus will be on the development and sharing of oral and written stories. Prerequisites: None
STO200AA - Biographical Storytelling
LEC  1 Credit   1 Period
Exploration of the art and craft of finding, developing and telling biographical stories. Prerequisite: None

STO282AA-AC - Volunteerism for Education: A Service Learning Experience
LAB  1-3 Credits 1-3 Periods
Service-learning field experience within educational systems, citizen advocacy groups, and human service organizations / agency. May be repeated for a total of six (6) STO282 Credit hours; may not repeat specific agency assignment for more than three (3) Credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of instructor.

STO283 - The African Storytelling Tradition
LEC  3 Credits 3 Periods
Introduction to the history and practice of storytelling in Africa. Overview of African myths, legends, folktales, parables, and fables. Great story tellers and story collectors of the past and present. Researching, developing, and crafting African stories for telling. Prerequisites: None.

STO284 - Storytelling and Music
LEC  3 Credits 3 Periods
Introduction to the role and importance of music in storytelling. Research, craft, and tell stories that include percussion, vocal, or instrumental elements. Prerequisites: None.

STO286 - Using Storytelling in a Variety of Settings
LEC  3 Credits 3 Periods
The application of storytelling and storytelling activities in the world of health care, business, parks, museums, hospitals, and education. Prerequisites: None.

STO288 - Telling Sacred Stories from Around the World
LEC  3 Credits 3 Periods
Introduction to sacred stories as a genre. Researching, developing, and crafting traditional and personal sacred stories. Finding appropriate applications and venues for telling. Prerequisites: None.

STO289AA - Using Storytelling in Educational Settings
LEC  1 Credit 1 Period
The application of storytelling and storytelling activities in educational settings. Prerequisites: None Cross-Reference: EDU283AA

STO289AB - Using Storytelling in Business Settings
LEC  1 Credit 1 Period
The application of storytelling and storytelling activities in business settings. Prerequisites: None.

STO289AC - Using Storytelling in Healing Settings
LEC  1 Credit 1 Period
The application of storytelling and storytelling activities in healing settings. Prerequisites: None

STO289AD - Using Storytelling in Interpretive Settings
LEC  1 Credit 1 Period
The application of storytelling and storytelling activities in interpretive settings including museums, gardens, parks, and zoos. Prerequisites: None.

STO290AG – Using Storytelling in Advocacy Settings
LEC  1 Credit 1 Period
The application of storytelling and storytelling activities in contexts of advocacy and civic engagement. Focus on stories that reflect the goals and aims of a civic organization. Prerequisites: None.

STO291AA - Storytelling Circle
LEC + LAB 1 Credit 1.5 Periods
Designed to provide opportunities for students to practice and develop critical listening and storytelling skills. Prerequisites: EDU292, or HUM292, or STO292, or permission of instructor.

STO292 - The Art of Storytelling
LEC  3 Credits 3 Periods
Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom. Prerequisites: None. Cross-References: EDU292, HUM292 General Education Designation: Humanities and Fine Arts - [HU]; Cultural Diversity – [C]

STO293 - The Art of Storytelling II
LEC  3 Credits 3 Periods
Further exploration of the art of storytelling. Provide opportunities for the expansion of storytelling skills and a deeper appreciation of storytelling and its applications. Prerequisites: EDU292 or HUM292 or STO292

STO294 - Multicultural Folktales
LEC  3 Credits 3 Periods
Study of multicultural folktales, exploring the impact of the oral tradition in American society and showing classroom applications. Prerequisites: None. Cross-References: EDU294, ENH294 General Education Designation: Humanities and Fine Arts - [HU]; Cultural Diversity – [C]

STO295 - Multicultural Folktales II
LEC  3 Credits 3 Periods
Study of storytelling focusing on the cultural context in which stories are told, their meaning in those contexts, and ways of telling those stories that honor their original contexts and tellers. Prerequisites: EDU294 or ENH294 or STO294.

STO297 - Creating and Telling Personal Stories
LEC  3 Credits 3 Periods
Exploration of the art and craft of finding, developing and telling personal stories. Prerequisites: EDU292 or HUM292 or STO292.
THE111 - Introduction to Theatre
LEC  3 Credits  3 Periods
A survey of theatre, including basic elements and principles of production, styles, and/or historical perspectives of theatre, dramatic literature, and criticism. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]

THE118 - Playwriting
LEC + LAB 3 Credits  3 Periods
Practice and study of theories and techniques of writing for the stage; creating characters, dialogue, and plot for monodramas, scenes, and plays. Prerequisites: None.

THE205 - Introduction to Cinema
LEC  3 Credits  3 Periods
Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements. Prerequisites: None. General Education Designation: Humanities and Fine Arts - [HU]

THE210 - Contemporary Cinema
LEC  3 Credits  3 Periods
A study of contemporary films, directors, and critics with emphasis on evaluating film as an art form. Prerequisites: None. Cross-References: HUM210, General Education Designation: Humanities and Fine Arts - [HU]

THE220 - Modern Drama
LEC  3 Credits  3 Periods
Analysis of dramatic literature studied within political, historical, and cultural contexts and examined from the perspective of the playwright’s structure and style. Prerequisites: ENG101 or ENG107 or equivalent. General Education Designation: Humanities and Fine Arts - [HU]; Literacy and Critical Inquiry - [L] Arizona Shared Unique Number SUN# 2220

THE220 - Modern Drama
LEC  3 Credits  3 Periods
Analysis of dramatic literature studied within political, historical, and cultural contexts and examined from the perspective of the playwright’s structure and style. Prerequisites: ENG101 or ENG107 or equivalent. General Education Designation: Humanities and Fine Arts - [HU]; Literacy and Critical Inquiry - [L] Arizona Shared Unique Number SUN# 2220

THE260 - Film Analysis
LEC  3 Credits  3 Periods
Understanding and enjoyment of film and its correlation to literature, art, music, and other disciplines. Prerequisites: None.

THEATER AND FILM (THF)

THF115 – Makeup for Stage and Screen
LEC + LAB 3 Credits  4 Periods
Purposes, materials, and techniques of makeup for stage and screen. Prerequisites: None

THF120AA – Audition Techniques for Stage and Screen: Prepared Monologue
LEC + LAB 1 Credits  2 Periods
Practice in the techniques of auditioning for stage and screen. Identifies and illustrates techniques of the prepared monologue audition. Prerequisites: None.

THF120AB – Audition Techniques for Stage and Screen: Cold
THP201AB - Theatre Production II
LAB  2 Credits  4 Periods
Designed to give college Credit to the cast and technical production crews of college theatre productions. May be repeated for up to a maximum of four (4) Credits. Prerequisites: None.

THP203 – Technical Theatre Production
LAB  3 Credits  6 Periods
Designed to give college credit to the technical production crews of college theatre productions. Prerequisites: None.
Course Notes: THP203 may be repeated for up to a maximum of nine (9) credits.

THP210 - Acting: TV/Film
LEC + LAB 3 Credits  4 Periods
Fundamental techniques of acting through script analysis, rehearsal, and performance. Prerequisites: THP112 or departmental approval.

THP211 - Creative Drama
LEC  3 Credits  3 Periods
Theory and practice of creative drama, including improvisation, storytelling, puppetry, and script and program development in drama, and their application to elementary and secondary school levels. Prerequisites: None.

THP211AB - Creative Drama: Storytelling/ Puppets
LEC  1 Credit   1 Period
Theory and practice of creative drama in storytelling and puppetry. Covers use of puppets to enhance storytelling skills. Emphasis on application in elementary and secondary school levels. Prerequisites: None.

THP212 - Acting II
LEC + LAB 3 Credits  4 Periods
Fundamental techniques of acting through script analysis, rehearsal, and performance. Prerequisites: THP112 or departmental approval.

THP213 - Introduction to Technical Theatre
LEC + LAB 3 Credits  5 Periods
Procedures of technical theatre production and demonstration. Topics include design and construction of scenery; lighting and properties. Prerequisites: None.

THP214 - Directing Techniques
LEC + LAB 3 Credits  4 Periods
Contemporary theory and practice in directing, the evolution of present-day directing procedures, and a sampling of scripts for directing practice. Principles of script analysis, blocking, casting, rehearsing, and performing. Prerequisites: THP112 or THE220, or permission of instructor.

THP217 – Introduction to Design Scenography
LEC + LAB 3 Credits  4 Periods
The role of the theatre designer in creating scenic, lighting, costume, sound, and multimedia effects for stage productions. Elements of the design process and communication of dramatic themes and visions to the audience. Prerequisites:
THP226 – Theatrical Design: Costuming
LEC + LAB 3 Credits 4 Periods
Basic techniques involved in researching, designing, and construction costumes for the stage. Prerequisites: None

THP241 - Oral Interpretation of Literature
LEC 3 Credits 3 Periods
The study, analysis, and preparation for performance of prose, poetry, and dramatic literature. Preparation of material for public audiences. Prerequisites: ENGL101 or ENGL107. General Education Designation: Humanities and Fine Arts - [HU]; Literacy and Critical Inquiry – [L]

THP271 - Voice and Diction
LEC 3 Credits 3 Periods
Exercises and techniques to free the voice and improve projection, resonance, and articulation. Covers international phonetic alphabet and standard stage speech. Prerequisites: None. Cross-Reference: COM271

THP281 - Production and Acting I
LEC + LAB 3 Credits 4 Periods
Provides the continuing acting student with opportunities to expand the versatility of characterization skills. Emphasis on relating the actor’s work to the total production process. Performance of monologues, scenes, and one-act plays. Prerequisites: Departmental approval.

THP285 - Creating/Performing Solo/Collaborative Works
LEC 3 Credits 3 Periods
Developing, rehearsing, and performing solo and collaborative works for fringe festivals and other storytelling and theatre venues. Prerequisites: None. Cross-References: STO285

THP298AB - Special Projects in Theatre
LAB 2 Credits 2 Periods
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or instructor.

WOMEN’S STUDIES (WST)

WST100 - Introduction to Women’s and Gender Studies
LEC 3 Credits 3 Periods
Introduction to critical issues in women’s studies. Prerequisites: None.

WST209 - Women in Films
LEC 3 Credits 3 Periods
Analysis of images of women in films from both historical and contemporary perspectives. Prerequisites: None. Cross-
ADMINISTRATION, FACULTY, MANAGEMENT AND STAFF

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Mr. Alfredo Gutierrez, Member
District 5 • Current Term Expires: December 31, 2016

Ms. Johanna Haver, Secretary
District 3 • Current Term Expires: December 31, 2018

Mr. John Heep, Member
At-Large • Current Term Expires: December 31, 2016

Ms. Tracy Livingston, President
At-Large • Current Term Expires: December 31, 2018

Ms. Jean McGrath, Member
District 4 • Current Term Expires: December 31, 2018

Mr. Dana Saar, Member
District 2 • Current Term Expires: December 31, 2016

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LaCoya Shelton-Johnson, Vice Chancellor Human Resources

Dr. Maria Harper-Marinick, Vice Chancellor and Provost
Academic and Student Affairs

Ms. Debra Thompson, Vice Chancellor
Business Services

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Dr. Chris Bustamante, President
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Dr. Jan L. Gehler, President
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Dr. Shari L. Olson, President
South Mountain Community College

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Steven Lieber, Public Safety Commander
B.S., University of Phoenix

Travis May, Coordinator, Audio/ Video
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B.S. Charter Oak State College

Margaret (Margie) Mesanko, Senior Manager Human Resources
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Patrick Mooney, Athletic Specialist
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Crista Pfeningr, Athletic Specialist

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