COLLEGE CATALOG
2016-2017

How to Use This Catalog

South Mountain Community College is dedicated to serving you. This catalog contains everything you need to know about South Mountain Community College and our degree options, course descriptions, and numerous college resources available to you.

The South Mountain Community College Catalog is published once a year. Please be aware that some courses and programs may be modified throughout the year. Students should always consult with an academic advisor to ensure that the most current information is available when making academic decisions. www.southmountaincc.edu

The 2016-2017 South Mountain Community College Catalog includes program requirements for new students enrolling in the Summer 2016 semester, the Fall 2016 semester and the Spring 2017 semester.

If you are a new student, or a student who has been readmitted after three or more semesters of inactivity, you may fall under the new catalog requirements outlined in the information found at this link: Catalog under Which a Student Graduates. Contact South Mountain's Enrollment Services at 602-243-8123 with any questions.

NOTE: The following sections are no longer a part of this document but can be found at the following links:

Common Pages of the Catalog: Common Pages

Policies related to Student Conduct: Student Conduct

The MCCCD Occupational Program Matrix:

- All MCCCD Academic Degree and Arizona General Education Curriculum (AGEC) Policies for 2016 – 2017 can be found at the following web link: **http://tinyurl.com/jcwpfaz**
    - AGEC-A
    - AGEC-B
    - AGEC-S
    - Associate in Arts
    - Associate in Arts, Elementary Education (AAEE)
    - Associate in Arts, Fine Arts – Art (AAFA)
    - Associate in Arts, Fine Arts – Dance (AAFA)
    - Associate in Arts, Fine Arts – Theatre (AAFA)
    - Associate in Science (AS)
    - Associate in Business GR (ABUS)
    - Associate in Business SR (ABUS)
    - Associate in General Studies (AGS)
    - Associate in Applied Science (Gen Ed Requirements)
    - Academic Certificate (AC)

Table of Contents

Administration

DISTRICT ADMINISTRATION

Dr. Maria Harper-Marinick, Chancellor

LaCoya Shelton-Johnson, Vice Chancellor, Human Resources

Dr. Paul Dale, Interim Executive Vice Chancellor and Provost
Academic and Student Affairs

Ms. Debra Thompson, Vice Chancellor
Business Services

COLLEGE PRESIDENTS
Dr. William Guerriero, *Interim* President
Chandler-Gilbert Community College

Dr. Ernie Lara, President
Estrella Mountain Community College

Dr. Eugene Giovannini, President
Maricopa Corporate College

Dr. Steven R. Gonzales, President
GateWay Community College

Dr. Irene Kovala, President
Glendale Community College

Sasan Poureetezadi, *Interim* President
Mesa Community College

Dr. Paul Dale, President
Paradise Valley Community College

Chris Haines, *Interim* President
Phoenix College

Dr. Chris Bustamante, President
Rio Salado Community College

Dr. Jan L. Gehler, President
Scottsdale Community College

Dr. Shari L. Olson, President
South Mountain Community College

General Information

VISION/MISSION/VALUES STATEMENTS

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

Our 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

Our 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 and the Maricopa Community College District Board reserve the right to change or withdraw, without notice, any of the materials, information, requirements, and regulations stated in this catalog.
South Mountain Community College is a member of the Maricopa County Community College District and is recognized by the Arizona State Community College Board.
South Mountain Community College is accredited by the Higher Learning Commission, North Central Association of Colleges and Schools.

The Higher Learning Commission
230 South LaSalle Street, Suite 7-500
Chicago, Illinois 60604
Website: http://.ncahic.org
Email: info@hlcommission.org
Telephone (800) 621.7440

South Mountain Community College is an active participant in the HLC Open Pathways process for Reaffirmation of Accreditation in 2019-20, having received full reaffirmation by the Higher Learning Commission in 2009. The Open Pathways model is focused on two processes:

- Each year we participate in the Assurance Review process by uploading a variety of materials relevant to its processes that serve as appropriate evidence that South Mountain is pursuing and achieving the five Criteria for Accreditation and the Core Components as determined by the HLC. In 2019-20, we will provide a comprehensive report that references this evidence. The evaluation process concludes with a visit from a panel of peer reviewers.
- The second process is Quality Initiative project that, in our timeline, is proposed, approved, conducted and reported between Fall 2014 and Spring 2019. This project is a major improvement effort that "should suit the institution's present concerns or aspirations."

What are the Assurance Review Criteria?

     Criterion One – Mission

The institution's mission is clear and articulated publicly; it guides the institution's operations.

     Criterion Two – Integrity: Ethical and Responsible Conduct

The institution acts with integrity: its conduct is ethical and responsible

     Criterion Three – Teaching and Learning: Quality, Resources, and Support

The institution provides high quality education, wherever and however its offerings are delivered.

     Criterion Four – Teaching and Learning: Evaluation and Improvement

The institution demonstrates responsibility for the quality of its educational programs, learning environments, and support services, and it evaluates their effectiveness for student learning through processes designed to promote continuous improvement.

     Criterion Five – Resources, Planning, and Institutional Effectiveness

The institution's resources, structures, and processes are sufficient to fulfill its mission, improve the quality of its educational offerings, and respond to future challenges and opportunities. The institution plans for the future.

Further details including the Core Components of Each Criterion are available at

http://www.ncahic.org/information-for-institutions/criteria-and-core-components.html

The Maricopa Community Colleges abide by all state and federal nondiscrimination and equal opportunity requirements.

    All inquiries to the college can be made to:
South Mountain Community College
7050 South 24th Street
Phoenix, Arizona 85042
Telephone: (602) 243-8000

South Mountain Community College
Anuncia a su Comunidad

Bienvenidos a su colegio de la comunidad South Mountain, el septimo miembro de los colegios de la comunidad de Maricopa.

El colegio de South Mountain es una institucion educative que le ofrece varios y distintos programas de instruccion al nivel collegial.

El colegio South Mountain esta preparado para proveer una experiencia educative para todos aquellos que lo desean, incluyendo clases de entrenamiento basico para diferentes carreras academicas y vocacionales.

Ya ve, no hay alguna razon porque usted no puede asistir el colegio South Mountain. El unico requisto es tener 18 anos de edad, no se necesita certificado de instruccion previa. Tambien si obtuvo una diploma de preparatoria (high school) o se encuentra en el ultimo ano escolar de la preparatoria, usted sin duda puede aprovechar de nuestro cursos.

La oportuniddad existe y esta a su disposicion, solamente le queda inscribirse. Recuerde que disponemos de un personal bilingue dispuesto ayudarle en lo siguiente: ayuda financiera, servicio de admission y inscripcion, consejeros bilingues, guarderia infantile, instruccion privada gratis para alumnus con problemas especiales.

Si tene preguntas visitenos en su moderno colegio que esta ubicado en 7050 S. Calle 24th, Phoenix, AZ 85042 o llame a (602) 243.8000 y denos la oportunidad de ayudarle a planear su futuro.

SMCC CERTIFICATES AND DEGREES

ACCOUNTING

Accounting (5665) 23-26 Credits
Accounting (3149) 60-65 Credits

BEHAVIORAL HEALTH SCIENCES

Advanced Behavioral Health Sciences (5521) 48 Credits
Advanced Behavioral Health Sciences (3067) 67-72 Credits
Basic Behavioral Health (5522) 19 Credits
Recovery Support (3032) 70-72 Credits

BUSINESS/ENTREPRENEURIAL STUDIES

Business Management (3054) 66-67 Credits
General Business (5683) 21 Credits
General Business (3148) 61-66 Credits
Entrepreneurial Studies: Level I (5819) – 10-11 Credits
Entrepreneurial Studies: Level II (5820) – 18-19 Credits
Management (5729) 18 Credits
Small Business Entrepreneurship (5192) 11 Credits
Small Business Start-Up (5706) 12 Credits

EARLY CHILDHOOD EDUCATION

Child Development Associate (CDA) Preparation (5710) 16 Credits
Family Child Care Management (5714) 16 Credits
Infant and Toddler Development (5715) 16 Credits
Early Learning and Development (3124) 63-68 Credits
Instructional Assistance (5119) 27 Credits

ENGINEERING

Engineering Technology (3228) 63-93 Credits

EXERCISE SCIENCE

Exercise Science and Personal Training (3059) 64-69.5 Credits
Personal Training Specialist (5445) 32-34.5 Credits

INFORMATION TECHNOLOGY
General IT; Applications - Certificates/Degrees

Information Technology Support (5163) 21-22 Credits
Information Technology: Computer Applications Specialist (5201) 36-38 Credits
Computer and Information Technologies (3167) 60-64 Credits
Information Technology: Computer Applications Specialist (3098) – 61-65 Credits

Networking - Certificates/Degrees

Information Technology: Cisco Networking (5526) 41 Credits
Information Technology: Cisco Networking (3095) 63-71 Credits
Information Technology: Network Security (5530) 40-41 Credits
Information Technology: Network Security (3097) 62-68 Credits
Information Technology: Network Server (5529) 39-40 Credits

Information Technology: Network Server (3096) 61-67 Credits
Linux Professional (5204) 12 Credits
Networking Administration: Cisco (5969) 14-18 Credits
Network Administration: Cisco Network Professional (5328) 16 Credits

Web/Graphics: Programming - Certificates/Degrees
Adobe Creative Suite in Business: Master Suite Applications Specialist (5778) 33-39 Credits
Adobe Creative Suite in Business: Print and Web Applications Specialist (5780) 24-30 Credits
Adobe Creative Suite in Business: Production Applications Specialist (5782) 18 Credits
Adobe Foundations (5807) – 9 Credits
Informational Technology: Android/iOS Programming (5834) 12-15 Credits
Informational Technology: Microsoft Programming (5833) 12-15 Credits
Informational Technology: Programming and Mobile Development (5193) 36-39 Credits
Informational Technology: Programming and Mobile Development (3099) 61 Credits
Informational Technology: Web & Graphic Design (5168) 36-38 Credits
Informational Technology: Web and Graphic Design (3100) 60-65 Credits
Mobile Apps Programming (5793) 16-45 Credits
Mobile Apps Programming (3139) 62-64 Credits
Web Application Development (5835) 12 Credits
Web Design (5159) 18 Credits
Programming (5047) 21-26 Credits

MANAGEMENT
Management (5729) 18 Credits
Retail Management (5286) 24 Credits
Retail Management (3048) 61-63 Credits
Supervision & Management I (5721) 15 Credits
Supervision & Management II (5722) 30-31 Credits

MARKETING/SOCIAL MEDIA
Marketing (5094) 18 Credits
Social Media Marketing (5830) 17-20 Credits

MUSIC BUSINESS
Music Business (5258) 26 Credits
Music Business (3017) 60-63 Credits

PHARMACY
Pharmacy: Customer Service (5348) 17 Credits

PHLEBOTOMY
Phlebotomy (5279) 7 Credits

REAL ESTATE
Real Estate Pre-license (5139) 6.5 Credits

STORYTELLING
Storytelling (6200) 30 Credits

SUSTAINABILITY

Sustainability (6240) 15-17 Credits
Sustainability/Ecological Literacy (6232) 16 Credits

WHO TO CONTACT

Concerns	Phone No.
Academic Assessment	602.243.8330
ACE Program	602.243.8276
Advisement Center	602.243.8331
Academic Appeal (Registration and Records)	602.243.8123
Athletics	602.343.8236
Bilingual Nursing (BNFP) Program	602.243.8260
Bookstore	602.243.8145
Cafeteria	602.243.8146
Canvas	602.243.8048
Career/Job Placement	602.243.8154
Center for Teaching and Learning (CTL)	602.305.5687
College Business Services (Cashier's Office)	602.305.5627
Communication, Fine Arts, and Social Sciences (CFASS Division)	602.243.8382
Community Entrepreneurial Center (CEC)	602.243.8012
Complaints & Grievance (Vice President, Student Development)	602.243.8036
Computer Assistance	602.243.8324
Computer Labs (Commons)	602.243.8048
Concurrent Credit (Registration and Records)	602.243.8123
Course Substitutions	602.243.8123
Credit by Exam	602.243.8123
Counseling Services	602.305.5608
Degree Planning (Student Enrollment Services/Advising)	602.305.5608
Disability Resources and Services	602.243.8027
Drop/Add Classes	602.243.8123
Dual Enrollment	602.243.8394
Financial Aid Office	1.855.622.2332
Fitness Center	602.243.8241
GED Testing	602.243.8188
Grade Change (Academic Appeal)	602.243.8123
Graduation	602.243.8123
Guadalupe Center … Main Office	602.243.8217
Honors Program	602-243-8089
Hoop of Learning	602.243.8340
Incomplete Grade	602.243.8123
International Education	602-243-8123
Language Arts (LA Division)	602.305.5771
Laveen Center	602.243.8217
Learning Resource Center	602.243.8189
Library	602.243.8187
Lost and Found (Public Safety-Security)	602.243.8100
myCareer, Library and Center for Teaching & Learning (mCLCTL)	602.243.8012
Marketing, Communications, Creative Services	602.243.8284
Mathematics, Science, Engineering and Counseling (MSEC Division)	602.243.8086
Northern Arizona University at SMCC	602.776.4647
Name Change (Registration and Records)	602.243.8123
Orientation	602.243.8102

Parking Tickets (Public Safety-Security)	602.243.8100
Performing Arts Center (PAC)	602.243.8382
Prior Learning Assessment (Registration and Records)	602.243.8123
Personal Problems (Career/Counseling Services)	602.305.5608
Registration (Registration and Records)	602.243.8123
Research and Planning	602.243.8288
Scholarships (Financial Aid Office)	602.243.8118
Service Learning	602.243.8176
Sexual Harassment (Vice President, Student Development)	602.243.8036
South Mountain Community Library (SMCL)	602.243.8187
Student Clubs (Student Life and Leadership)	602.243.8065
Student Governance (Student Life and Leadership)	602.243.8065
Student Life and Leadership	602.243.8065
Student ID (Student Life and Leadership)	602.243.8123
Registration and Records	602.243.8123
Study Skills (Student Life and Leadership)	602.243.8065
Technology Helpdesk	602.243.8324
Test Anxiety (Learning Assistance Center)	602.243.8181
Testing Information (Student Services Assessment Services)	602.243.8188
Transcript Evaluation (Registration and Records)	602.243.8123
Transcript Request (Registration and Records)	602.243.8123
Transferring Courses (Registration and Records)	602.243.8123
TRIO/STEP/Upward Bound	602.305.5676
Tuition and Fees (Registration and Records)	602.243.8123
University Transfer and Access ASU	602.243.8052
Vehicle Registration (Public Safety-Security)	602.243.8100
Tutoring (Learning Assistance Center)	602.243.8181
Veterans Services Office	602.872.7730
Vice President, Learning	602.243.8035
Vice President, Organizational Effectiveness & Technology	602.305.5612
Vice President, Student Development	602.305.5612
Welcome Center	602.243.8000
Withdrawing from College (Registration and Records)	602.243.8369

2016-2017 Academic Calendar

Fall Semester – 2016
Registration - Consult the fall Class Schedule or www.southmountaincc.edu for registration and drop/add information.

Classes Begin ....Saturday ....August 20
Day/Evening Classes Begin ....Monday ....August 22
Observance of Labor Day (campus closed)................................Monday.....................................September 5
Spring 2017 Priority Registration for Currently Enrolled Students..........................Monday ....October 3
Spring 2017 Open Registration Begins ....Monday ....October 10
Last Day to File Application for December 2016 Graduation ....Friday ....October 14
Last Day for Withdrawal without Instructor's Signature...+ (see below)
Observance of Veterans' Day (campus closed)..........................Friday ....November 11
Thanksgiving Holiday (campus closed) ....Thursday-Sunday...................November 24-27
Last Day Student Initiated Withdrawal Accepted ....++ (see below)
Last Day of Classes ....Saturday....................................December 10
Final Exams* ....Monday-Thursday ....December 12-15
Mid-Year Recess Begins for Students ....Friday ....December 16
Fall Semester Ends [Last Day of Faculty Accountability]...Friday..December 16
Mid-Year Recess (campus closed) ....December 25 through January 1

Spring Semester – 2017
Registration - Consult the fall Class Schedule or www.southmountaincc.edu for registration and drop/add information.

Classes Begin ....Saturday ....January 14
Observance of M.L. King Jr. Holiday (campus closed) ....Monday ....January 16
Day/Evening Classes Begin ....Tuesday ....January 17
Observance of Presidents' Day (campus closed) ....Monday ....February 20
Fall 2017 Priority Registration for Currently Enrolled Students................................Monday ....March 6
Last Day to File Application for May 2017 Graduation ....Friday ....February 26
Last Day for Withdrawal without Instructor's Signature...+ (see below)
Spring Break (campus closed)..Monday-Sunday ....March 13-19
Fall 2017 Open Registration Begins ....Monday ....March 20
Last Day Student Initiated Withdrawal Accepted ....++ (see below) Last
Day of Regular Classes ....Saturday ....May 7
Final Exams*..Monday-Thursday ....May 8-11
Commencement ....Friday..May 12
Spring Semester Ends ....Friday..May 12
Observance of Memorial Day..Monday ....May 29

Summer Semester – (Subject to 2017-2018 Catalog)
Registration – Consult www.southmountaincc.edu for registration and drop/add information.

ACE 5-wk Program Begins..Tuesday ....May 30
First 4-week/8-week Sessions Begin..Tuesday ....May 30
First 4-week Session Ends...Thursday ....June 22
ACE Ends ....Thursday..June 29
Observance of Independence Day (campus closed)...Tuesday ....July 4
8-week Session Ends..Thursday ....July 20
Second 4-week Session Begins...Monday...June 26
Second 4-week Session Ends ....Thursday ....July 20

* Classes meeting on Friday evening only or Saturday only will have final examinations during the last regular class meeting.
+ See your student schedule in my.maricopa.edu for the Last Day to Withdrawal without an Instructor Signature for each class in which you are enrolled.
++ Refer to the Important Deadlines for Students section of the student handbook to determine the Last Day Student Initiated Withdrawal..

Student Services and Resources

Enrollment Services | 602.243.8123

STEP 1 – GET ADMITTED
Create MEID Account and Apply for Admissions
https://my.maricopa.edu/

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

STEP 2 – TAKE THE PLACEMENT TEST
- Prepare by reviewing the sample questions at: http://www.southmountaincc.edu/testing/
- Placement test will ensure appropriate level of classes for enrollment.
- The Placement Test is not a pass/fail exam.
- The Placement Test is **untimed** and **FREE**.
- Bring your government issued photo ID on the day of testing.
- To review your test score results, ask for a Course Placement Chart.

STEP 3 – SEEK ACADEMIC ADVISEMENT
Schedule   Advisement   Session
http://www.southmountaincc.edu/advisement/

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

STEP 4 – PAY TUITION AND FEES
Explore Payment Options

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

Student Services
Student Enrollment Services Bldg.
Southmountaincc.edu/student services
South Mountain Community College Student Enrollment Services is focused on a commitment to offer quality and convenience to the students and the community.

SMCC's One Stop Enrollment Centers

SMCC Main Campus
7050 S. 24th Street (north of Baseline Road) Phoenix, AZ 85042
602.243.8000
Hours: Mon. - Thurs., 8 a.m. to 7 p.m.
Fri., 8 a.m. to 3 p.m.

SMCC Guadalupe Center
9233 S. Avenida del Yaqui (Priest Drive, south of Guadalupe Rd.)
Guadalupe, AZ 85283
602.243.8217
Hours: Mon.-Tues., 8 a.m. to 10 p.m.
Fri., 8 a.m. to 2 p.m.

SMCC Legacy/Laveen Center
7900 S. 43rd Avenue
Laveen, AZ 85339
623.344.0472, ext. 3593 (between 6:00-9:00 pm)
Hours: Mon.-Thurs., 5:30 – 9:00pm
Friday – Saturday CLOSED

Enrollment Services | 602.243.8123
Maricopa Financial Aid Center | 855.622.2332
• Process Student Information Forms
• Determine and process residency for tuition purposes
• Process class registrations and withdrawals
• Maintain official college transcripts
• Evaluate transcripts
• Process transcript requests and enrollment verification
• Evaluate graduation applications for degree and certificate completion
• Issue Student ID

College Business Services | 602.305.5627
• Process tuition and fee payments
• Process refunds (when appropriate)
• Distribute payroll checks
• Provide check cashing services
• Provide information on student tuition payment plans

Bookstore

Student Services | 602.243.8159
Your SMCC Bookstore Manager is Mark Sawhill
Email: smountain@bkstr.com
Textbooks and course materials, digital course materials, school supplies, college apparel and miscellaneous items for students are available at the campus bookstore. The bookstore is located in the Student Services Building. Regular hours during the Fall and Spring semesters are Monday through Thursday 8:00 a.m. to 7:00 p.m. and Friday 8:00 a.m. to 2:00 p.m. Store manager can be reached at 602.243.8159.

RENTING BOOKS at SMCC!
You need to be 18 years of age (or older) and have a valid credit card. You must also have an email address and a driver's license or state ID. Finally, you will need to fill out a rental agreement with the bookstore. You can rent directly from the bookstore or online; which signifies your commitment to return your book by the check-in-date. It's that simple!

Refunds - An original receipt is required for all refunds. Textbooks can be returned for a full refund within seven days of the first day of class and within two days from the date of purchase thereafter. Books purchased the last week of classes or during final exams are not eligible for refunds. Textbooks must be returned in the same condition as purchased.

Buy Back - Students can sell their books to the bookstore at the end of each semester. Your textbook adoption form is required in order for the bookstore to buy books at half the current selling price. Your cooperation in submitting this information in a timely manner is critical and greatly appreciated. Questions, comments, and concerns please call 602.243.8159.

ONLINE BUYBACK. SELL YOUR TEXTBOOKS ONLINE - ALL DAY, EVERY DAY. You see how much you'll get for your books online, ship them to us, and we will offer you the current market value. During our major buyback periods, we may offer up to 50% of your money back. Our textbook buyback issues your check the same day your textbooks arrive. If you have a question concerning books you're selling back to us through our online buyback service you can reach us through the following information:
Customer Service: 800-381-5151
email: comments@efollett.com
For questions regarding your order, please refer to our Contact Us page.

College Business Services/ Cashier's Office

Student Enrollment Services Bldg. | 602.243.8125
The Cashier's Office handles all financial transactions such as tuition and fee payment, refunds; The Cashier's Office handles all financial transactions such as tuition and fee payment, payroll, time cards,
and petty cash for the college. Any questions regarding tuition & fee payments should be directed to this office. During the Fall and Spring semesters the office will be open Monday through Thursday 8:00 a.m. to 7:00 p.m., Friday, 8:00 a.m. to 4:00 p.m. During the Summer Semester office hours will be Monday through Thursday 7:30 a.m. to 7:00 p.m. For further information please call 602.243.8125 or visit http://students.southmountaincc.edu/Resources/Cashiers Office/

Career Services

Student Services 602-243-8154
NEED HELP WITH YOUR CAREER DECISIONS?
South Mountain Community College's Career Services are designed with you, the learner, in mind. Whether you are choosing a major, exploring your career options for the first time, thinking of a career change or need to learn job search skills, our services can help you reach your personal, educational and professional goals. The Career Services Center offers resources for choosing a major, career exploration, self-assessment, and employment.

For more information, call 602.243.8154 or visit: http://students.southmountaincc.edu/StudentDevelopment/Career Services/

Counseling Services
Student Services | 602.243.8383
Counselors are available to assist students with personal, educational, and vocational concerns.

Services provided by the counseling faculty include:
- Personal-Social Counseling: To help examine concerns which interfere with your personal development and growth or relationships with others.
- Referral: To provide resource information and referral to outside agencies for ongoing assistance with personal and emotional concerns.
- Crisis Counseling

All Counseling Services are available to current students. Career and Educational Counseling services are also available to prospective and past students on a limited basis only. Stop by or call 602.305.5608 for an appointment. Counselors are located in the Student Services Building next to the Learning Assistance Center.

Academic Advisement & Recruitment
The Advisement and Recruitment Center guides students in planning and achieving their educational, career and life goals. Meet with an academic advisor for assistance with:

- Planning your educational goal(s)
- Exploring programs/majors
- Interpretation of placement scores and course selection
- Unofficial transcript evaluation
  - Appropriate certificate/ degree selection to meet career and educational goals.
- Appropriate course selection to meet certificate, associate degree, and transfer requirements
  - Developing a semester to semester educational plan to completion
- Planning for graduation
- Locating & exploring educational web resources

For an appointment please call our front desk team at 602-243-8330

Advisement Team
Analia Barriga   602.243.8156 - Main Campus
Email: analia.barriga@southmountaincc.edu

Deborah Spadafore   602.243.8157 - Main Campus
Email: deborah.spadafore@southmountaincc.edu

Erica Hallum   602.305.5787   Main Campus
Email: erica.hallum@southmountaincc.edu

Karla Perez   602-243-8330   Main Campus
Email: Karla.perez@southmountaincc.edu

Laura Smith (STEP program) Main Campus
Email: laura.smith@southmountaincc.edu

Rochelle Rivas
Bilingual Nursing Fellowship Program BNFP
602.243.8256 - Main Campus
Email: rochelle.rivas@southmountaincc.edu

Angelina Valencia   602.243.8218 - Guadalupe Center
Email: angelina.valencia@southmountaincc.edu
Recruitment Team
Arnold Torres
602-243 8142
Email: Arnold.paul.torres@southmountaincc.edu

Peter Do
602-305-5607
Email: peter.do@soutmountaincc.edu

Christine Neill (Coordinator of Advisement and Recruitment)
602.243.8185
Email: christine.neill@southmountaincc.edu

Student Success Programs
Student Services |602.243.8346

Christopher Erran (Coordinator of Student Success Programs)
602.243-8346
Email: Christopher.Erran@southmountaincc.edu

Callan Fay (Student Support Specialist)
602.243-8257
Email: Callan.Fay@southmountaincc.edu

Melissa Carrasco (Student Support Specialist)
602.243-8176
Email: Melissa.Carrasco@southmountaincc.edu

Services provided by Student Success Programs include:
- Pre-Advisement Sessions

- New Student Orientation
- Student Success Workshops/Programs/Events
- SMCC Welcome Week
- Student Success Leadership Programs (Cougar Ambassadors/New Student Orientation Leaders)

Learning Center (Tutoring)
Learning Resource Center (LRC) Bldg. (LRC 182) | 602.243.8189
The Learning Center provides free tutoring in a variety of subjects including Biology, Math, Chemistry, ESL, and Spanish. Services are available on a drop-in basis during open hours of operation. Additional resources include informational material in print and on the web. Tutoring is provided one-on-one and in small groups. There are study rooms available to reserve. Students must be enrolled at South Mountain Community College in the class in which they are seeking assistance. For more information, please stop by, give us a call or visit us on the web.

Location:	LRC Building (LRC 182) Hours:

Hours: Fall/Spring Semesters:
8:00 a.m. - 7:00 p.m., Monday – Thursday
8:00 a.m. - 5:00 p.m., Friday
Saturday and Sunday - Closed

Summer Semester
8:00 a.m. - 7:00 p.m., Monday - Thursday; Friday, Saturday and Sunday – Closed
Hours vary in the summer and during breaks.

Phone:	**602.243.8189**

Disability Resources & Services |

602.243.8395
The Disability Resources & Services (DRS) office representatives coordinate the provision of reasonable accommodation for qualified students with disabilities. All accommodations are provided on a case by case basis. Any student requesting accommodation must begin the process by informing the institution of any accommodation needed within a reasonable time frame, making an appointment with the DRS representative to review his/her needs, providing appropriate documentation of his/her disability, completing required paperwork, and meeting with all course instructors to review or discuss his/her accommodations.

Guidelines for documentation for any requested accommodations are available through the DRS office or by visiting the Maricopa County Community College website at: www.maricopa.edu/publicstewardship/governance/adminr eg s/students/2_8.php

Reasonable accommodation is the provision of an auxiliary aid, device, or modification to the course or program that will allow access to the educational program, material, activity or degree. Contact DRS office to obtain a copy of available resources and services, a minimum timeline for notification, and/or for more information. You may also visit the DRS web- site at: http://students.southmountaincc.edu/studentdevelop ment/disabilityresources

The Disability Resources & Services office is located in the Student Enrollment Services (SES) Building, Room 130. Office hours are Monday – Friday, 8:00 a.m. – 4:30 p.m. (Fall/Spring) and Monday – Thursday, 8:00 a.m. – 6:00 p.m. (Summer Hours). If you have any questions, contact Catherine Pettet at 602.243.8395, fax 602.243.8226, or via e-mail at catherine.pettet@south mountaincc.edu

Types of Financial Aid

The eligibility requirements listed on this page are general in nature and not intended to be comprehensive. The requirements for individual types of aid do vary and students should contact the Financial Aid Office for details. Students are advised to keep current regarding any federal changes which may affect their eligibility for financial assistance.

Type of Aid		Name of	Eligibility Requirements	Amount of* Assistance	Priority Date to Apply &
Grants & Scholarships	Federal	Federal Pell Grant Program	Undergraduates, have not earned bachelors/first Professional degree. Demonstrate need as determined	Dependent on need as determined by FAFSA process. Ranges: minimum	April 1 preferred, FAFSA available from SMCC Financial Aid Office, or at any high school, or
	Grant	Federal Supplemental Educational Opportunity (FSEOG)	Financial need as determined by SMCC Financial Aid	Minimum $1,000 Maximum $1,000	April 1 preferred, FAFSA available from SMCC Financial Aid Office,
	State	Arizona State Incentive Grant (LEAP)	Resident of Arizona financial need as determined by SMCC Financial Aid Office through the Federal FAFSA	Minimum $1,000 Maximum $1,000	April 1 preferred, FAFSA available from SMCC Financial Aid Office,
		Bureau of Indian Affairs Tribal Scholarships	Student must be 1/4 Native American. Must complete tribal application which can be attained	Aid may be up to 100% of actual school expenses	April 1, priority. Obtain BIA application at your tribal agency. SMCC will
	Institutional	Academic Scholarships. College, MCCCD or Private Scholarships	Based on academic achievement. Must enroll for 6 or more units. Financial need may be required. Must have a cumulative GPA of 2.5 or better.	No Minimum No Maximum	April 1, priority. Check with your high school counselor or the SMCC Financial Aid Office Scholarship website:
Loans	Institutional & Federal	Long Term	Direct Lending Loan program. Must be enrolled in at least six (6) credit hours.	Up to $10,500 depending on academic Level	Check with Financial Aid Office
Employment	Federal	Federal Work Study Program (FWS)	Must be enrolled for at least 6 credit hours during the term of employment, complete the FAFSA application and have unmet need. Financial need is determined by SMCC	Amount varies, but student could earn up to $4,800 per year.	Must enroll for classes, submit FAFSA and visit the SMCC Career Services
	Institutional	Budget/Institutional Employment	Must be enrolled for at least 6 credit hours during the term of employment, complete the FAFSA application. Financial need not	Amount varies, but student could earn $1,000 - $4,000	Must enroll for classes, submit FAFSA and visit the SMCC Career Services
Other	Federal Veteran	Veterans/GI Bill	Veterans of military service with a minimum required time served of 181 days on active duty and proper	Varies according to marital status, number	Visit Veterans Services located in Records & Registration
		Tuition Deferments	Financial aid application has been submitted to SMCC	In-state tuition.	July 1 - Fall November 1 - Spring April 1 - Summer

*MAXIMUM AWARDS (2016-2017)

* Students must check www.my.maricopa.edu to view a list of personal student "to do's" to complete their financial aid file.

Financial Aid Office

General Information
The Financial Aid Office at South Mountain Community College is designed to provide financial assistance to eligible students from funds from federal, state, institutional and private sources of funding. (See chart, page 25).

Awards are made on the basis of financial need. Need is the difference between the cost of attending SMCC and the resources an applicant has available. Those resources include, but are not limited to, the following: expected parental contribution, student contribution (through savings and employment), social security, veterans' and other benefits available to the student.

In order to assess need, all applicants must submit financial information concerning themselves and their parents. The information is submitted by a free application form (FAFSA). Students are encouraged to file this application through www.fafsa.edu.gov. The Financial Aid Office uses this information in determining need and eligibility after verifying the information in the Financial Aid Office.

Financial assistance may be provided in the form of grants, scholarship, loans, and employment offered singularly or in some combination, depending upon the level of financial need, and various eligibility criteria.

ATTENTION:
Only those with a lawful presence in the U.S. may qualify for MCCCD scholarships or federal financial aid. Any information you provide about your legal status when you apply for financial aid or scholarships may be subject to mandatory reporting to the federal immigration authorities under Arizona law. For details regarding Residency and Citizenship Information requirement please visit: https://www2.maricopa.edu/ residency

In assessing an applicant's need, all available resources are subtracted from the budget. For example:

Academic Year Budget (commuter)	$ 12,458
Parent's Contribution	$ 0
Student's Contribution	$ 0
Financial Aid Eligibility (need)	$12,458

How Much Does It Cost To Attend SMCC Full Time?
The direct cost of attendance annually is approximately $1,047 for tuition for full-time students and $600-$800 for books. The total cost for the 2016 - 2017 academic year may vary from $12,458 to $20,380, depending on residency and tuition status, books, and supplies, room and board, travel and personal expenses.

Priority Deadline
The process of applying for financial aid requires time and attention. The priority filing date for SMCC financial and applicants is July 1 for the Fall semester. The earlier a student applies for aid, the better his/her options are for obtaining funding. Students are encouraged to complete their process by July 1.

Financial Aid Student Responsibilities
Prior to receiving any source of financial aid, the student is required to: (1) Successfully complete academic assessment testing if non-high school graduate; (2) Enroll for those classes that apply to a specific program of study leading to a degree or certificate; (3) Have an student services specialist approve a specific major course of study (degree objective); (4) Maintain satisfactory progress each semester; (5) Notify the Financial Aid Office and Business Services Office of withdrawal from school; (7) Repay any debts as stated on any promissory note signed by the student; and (8) Meet other requests and requirements established by the Financial Aid Office not expressed here.

Payment of Award
The Cashier's Office is responsible for processing and distributing all funds. For the **fall** (August-December) term, students who have met the priority date of July 1 (FAFSA completed **and** all requested documents submitted to the Financial Aid Office), can expect to be held in their classes and awarded financial aid by or around the start of the regular fall semester. Approximately **two weeks after classes begin**, tuition and fees will be subtracted from financial aid funds automatically by the Cashier's Office. Once the semester balance has been paid in full, a request will be generated to Citibank to issue a refund to the student for any remaining funds with the exception of student loans, which have delayed disbursement dates.

For the **spring** (January-May) term the priority date is November 1st.

For the **summer** (June-July) term, the priority date is April 1st. Summer awards are reviewed and awards are based off of enrollment and eligibility.

Students not meeting the priority dates stated above may be considered late and will be processed in as timely a manner as feasible, but **must set up a payment plan** to be held in their classes.

Book Advance Program
The Book Advance Program provides cash advance refunds to qualified students who have been **awarded and have accepted their** financial aid awards. Eligible students are able to receive a refund approximately 9 days prior to the beginning of classes (some exceptions may apply). Students are allowed to purchase books and supplies with their advance refund at on-campus bookstores, neighborhood bookstores, or online. For more information go to: https://Maricopa.service-now.com/student/go.do?num=KB0010176

NOTE: The amount of cash the student is to receive is determined after the financial obligations to South Mountain Community College are deducted. Balance of funds due to the students are typically released two weeks after the start of the semester. Students should be aware that each Maricopa
college may have different disbursement dates, and that students who enroll entirely in late-start classes will have a late disbursement date as well.

More information about the application process, students rights and responsibilities, enrollment requirements, verification and academic progress policies, handicapped student assistance, refund policies, and summaries of various state, federal, and local aid programs are available in writing from the Financial Aid Office located in the Student Services Building. Telephone: 602.243.8300.

South Mountain Community Library |
602.243.8187
The South Mountain Community Library (SMCL) is an integrated library composed of the academic library for South Mountain Community College (SMCC) and a branch of the Phoenix Public Library.

The purpose of the SMCL (http://smclibrary.org/) is to provide instructional, informational and recreational resources and programming to meet the needs, interests, cultures and languages of our community. We assist students and others with their research through classroom and one-on-one instruction. In addition, students have access to supplementary classroom materials through the Reserve Collection, housed at the second floor service counter. All users must have either a current SMCC ID

Card or a valid Phoenix Public Library Card to check out materials, including reserve items in the library.

The librarians, through consultation with faculty, provide library research and information literacy instruction to classes. Information literacy instruction may be scheduled by calling 602.243.8194 or submitting an online request. The Library will be open Monday through Thursday 7:30 a.m. to 9:00 p.m., Friday and Saturday 7:30 a.m. to 5:00 p.m. and Sunday 1:00 p.m. - 5:00 p.m.

Please note that the parking lot immediately east of the SMCL and entered from 24th Street is reserved for public library patrons only. Students may park in any of the other parking lots at the College.

Veterans Services

602.243.8369
The mission of Veterans Services at South Mountain Community College is to act as a liaison between the veteran student and the Department of Veterans Affairs, for the purposes of certifying veteran educational benefits.

This office serves as the primary contact in assisting veterans with completing the necessary paperwork to insure proper VA educational entitlements. Students are provided:
• Registration Assistance
• Educational Benefits Information
• Academic Advisement

South Mountain Community College Veterans Services will also make referrals and guide the student to other campus resources including tutoring, personal and career counseling, disability services and financial aid.

Location: Student Enrollment Services Building
Registration and Records Office
Hours: Fall/Spring Semesters:
8:00 a.m. - 7:00 p.m., Monday - Thursday
9:00 a.m. - 5:00 p.m., Friday

Summer:
7:30 a.m. - 6:00 p.m., Monday - Thursday; Closed on Friday
Phone: 602.243.8369 or 602.243.8123
Fax: 602.243.8199

Public Safety | 602.243.8100

South Mountain Community College enjoys excellent relations with its neighbors and maintains a highly visible Public Safety Department. The Public Safety team at SMCC is committed to providing a professional service for the students, staff and guests who attend, work, or visit our teaching and learning community.

We strive to ensure that our campus environment is safe, accessible, cheerful, and conducive to academic achievement. Compared to other colleges and universities in Maricopa County, South Mountain Community College has the fewest reported crimes.

The Public Safety staff consists of a diverse group of AZPOST certified police officers, non-certified public safety officers, lead patrol aides, student patrol aides, and other office-support personnel. The department also maintains a cooperative working relationship with the Phoenix Police Department and will request assistance as needed. Public safety services are provided at the SMCC Main Campus. The college also offers classes at rented and shared facilities in Guadalupe, and Laveen.

To decrease the chances of crimes occurring within the campus community, everyone's cooperation and vigilance is needed. All members of the campus community are encouraged to immediately report all suspected crimes, unusual or suspicious activities, and emergencies to Public Safety.

General information about campus safety may be obtained from the SMCC Public Safety Office or online at http://public safety.southmountaincc.edu.

Statistics available on the SMCC Public Safety website are gathered in accordance with guidelines established under the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (20 U.S.C. 1092(f). The crime definitions outlined in the Federal Bureau of Investigation's National Incident Based Reporting System, as modified by the Hate Crime Statistics Act, are utilized in compiling the numbers.

Public Safety Officer on Duty: 24/7
Location: Student Union Building
Office Hrs: 6:00 a.m. - 10:00 p.m., Monday - Friday
8:00 a.m. - 3:00 p.m., Saturday
Phone: 602.243.8100
Email: safety@southmountaincc.edu
Contact: Margaret Turner-Sample, Public Safety Commander

South Mountain Community Writing Center | 602.305.5871
One excellent resource for writing assistance is South Mountain Community College is the new Writing Center. The center offers FREE help with many aspects of writing from brainstorming a topic to Modern Language Association (MLA) documentation. No appointment is necessary, and for distance learners, online writing tutoring is now available.

Location: Learning Resource Center
Hours: Fall/Spring Semesters:
8:00 a.m. – 7:00 p.m. Monday-Thursday
8:00 a.m. - 5:00 p.m., Friday

Summer Hours:
8:00 a.m. - 2:00 p.m., Monday & Wednesday
10:30 a.m. - 2:00 p.m.,
3:30 p.m. - 6:30 p.m., Tuesday & Thursday
Closed on Friday
Phone: 602.305.5865
Email: writing.center@southmountaincc.edu
For more information, visit http://students.southmountaincc.edu/StudentDevelopment/WritingCenter/

Succeeding in College
Your success in college requires high motivation and effort, strong study skills, effective time management, and good test-taking strategies. You will generally find that students are more motivated; teachers are more demanding; and students are expected to be independent. Further, if you are living away from home for the first time, you will have many new experiences. Here are some ideas that will help you succeed in college:

Have Clear Goals
College success requires commitment and a lot of hard work. You must be very certain about the importance of a college education.
• Be clear about why you are going to college.
• Establish specific goals you wish to accomplish.
• Know what it will take to reach these goals.
• Be certain your goals are consistent with your interests and abilities.
• Be flexible - change your goals if needed based on your experience as you progress through college.

Get Financial Aid if Needed
College is expensive. Even if you attend a public college or university and live at home, you still must pay for tuition, fees,

and books. There are many sources of financial aid that can help you meet the high costs of college. Become aware of and pursue these sources.

- Consider all possible sources of financial aid in addition to your college's financial aid office.
- Meet all deadlines for submitting applications and

documentation.

- Check your My.mariopa.edu "Message Center" early and often for important messages and updates.
- Respond quickly and completely to all requests for additional information.
- Be persistent in following up your application.
- If you do receive financial aid, meet all requirements to keep and continue your aid.

Manage Your Money

There are many ways to spend money in the college setting for other than education purposes. Take steps to ensure that you do not waste the money set aside for your college education.

- Set a budget and keep to it.
- Be careful about your use of credit cards. Don't overspend. Pay balances promptly to avoid high interest costs.
- Open a checking account and carefully monitor your balance.
- Keep your cell phone under control. Those minutes and fees can really add up.

Stay Physically and Emotionally Healthy

You will need to be at your best to succeed in college. This means taking care of your body and maintaining a good frame of mind.

- Get enough sleep.
- Don't rely on coffee and drinks that contain high doses of caffeine to provide you with energy. Foods such as pasta, peanut butter, non-sugar cereals, and fresh fruit are healthy alternatives to provide the energy you need.
- Avoid junk foods. Fast food is convenient but usually not good for you.
- Use the services of the counseling office. The professionals there can help you overcome feelings of loneliness, depression, and anxiety.

Work with Your Advisor

As a student you may select a faculty or program advisor to help you with both academic and career issues. It is up to you to get the most out of this guidance.

- Know your advisor's office location, schedule of office hours, and contact information.
- Schedule an appointment with your advisor at any time you have problems that affect your academic performance.
- Consider your advisor's ideas when selecting your major or at any time you are considering changing your major or career goals.
- Have specific questions in mind whenever meeting with your advisor.

Make Good Use of the Library

You are going to spend a lot of your time in college at the library. Take full advantage of this major resource.

- Get to know the resources of the library as soon as you get to college.
- Learn to use its computer resource.
- Check out its quiet study areas.
- Get Involved in Campus Life
- There is a lot more to college than just classes. A college campus is an exciting, dynamic environment that can provide you with many opportunities for enhancing your college experience.
- Join a student organization that is consistent with your interests. You will find many organizations from which to choose.
- Join a club in your major. This cannot only help you in your studies but can provide contacts that may be very useful in your future career.
- Join an athletic team. This is a great way to keep yourself in good physical shape and make new friends.
- Attend social events. Your college experience should not be all work and no play.

VOCABULARY FOR COLLEGE SURVIVAL:

Terms You Should Know

Academic Advisor - See: Student Services Specialist

Adjunct Faculty - Part-time certified instructors.

Admission - Acceptance into a college after the student has filed a completed Student Information Form with the Admissions and Records Office and has been admitted according to admission criteria. Students who have been admitted are eligible to register for courses.

Advisor - A counselor, faculty, or other designated staff member who has received training to provide students with academic information that will direct them to the appropriate classes to achieve their goals and enhance their success.

AGEC - A 35-semester credit general education program of study that fulfills lower-division general education requirements for students planning to transfer to any Arizona public community college or university and transfers as a block without loss of credits.

Assessment - Also known as placement or Assessment of skills for Successful Entry and Transfer (ASSET) testing. Assessment is a way of evaluating student's present skills in English, reading and math so students may choose courses that match their skills. Assessment is based on scores on the ASSET course placement tests. Scores are used as a guide for proper course placement, which leads to greater success.

Associate Degree - A degree awarded for the completion of a minimum of 64 credits selected to meet specific requirements. Degrees designed for transfer to a university include Associate in Arts (AA), Associate in Science (AS), and Associate in Business (ABus). The Associate in General Studies (AGS) allows more flexibility in course selection, and the Associate in Applied Sciences (AAS) emphasizes a particular occupational field.

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

Attachment - A file that is included with an e-mail message. Oftentimes, the file must be saved to the desktop before it can be opened.

Audit - An option for class registration in which the student pays to attend class but does not want to receive credit. Students sometimes choose to audit courses in which they do not wish to complete assignments.

Bachelor's Degree - A degree awarded by a four-year college. The B.A., B.S., or B.A.S. requires approximately 120 credits.

Blended Learning - Blended learning is often referred to as Hybrid learning and typically is the combination of multiple approaches to learning. An example of blended learning would be to give a well-structured introductory lesson face- to-face in the classroom, and then provide follow-up materials online, often times provided through Canvas (a course management system).

Blog - A user-generated website where entries are made in journal style. A blog provides interactive commentary on a particular subject.

Campus - The College a course is being offered at (SMC).

Canvas - A course management system designed to support teaching and learning in an educational setting; often referred to as a virtual learning environment. Canvas works over the Internet and provides a variety of tools that a student and instructor use to communicate with each other such as uploading of course content, return of student's assignments, peer and group interaction, collecting and organizing student grade, questionnaires, etc. Canvas is used to supplement the face-2-face classroom environment, commonly known as Blended Learning.

Catalog - The annual publication which explains college policies, procedures, and programs, including course descriptions. Catalog is available on a CD or in Acrobat (pdf) files on SMCC website

Catalog Year - A policy that allows students who maintain continuous enrollment to follow the program requirements of the catalog year in which they began.

Certificate of Completion (CCL) - A certificate awarded for the completion of a specified career program.
Class Notes - Notes unique to the class attached to in SIS that give specific instruction to the student.

Class Number - The five-digit number following the subject code and course number of a class (i.e., PSY101 55673). (formerly referred to as section number of a class ID).

Class Section - The numerical order of several classes within the same subject area (4 digits long).

Class Status - Active (open for enrollment), Cancelled Section (class placed in cancelled status due to low enrollment), Stop Further Enrollment (class placed in this status to prevent any further enrollment), and Tentative Section (temporarily closed status until enrollment determined; usually a class set up for ACE or Charter School students).

College Orientation - A session during which new students are introduced to academic programs, facilities, and services provided by a college. See NSO.

College Work/Study - A form of financial aid based on need, which provides the student with paid employment while in school.

Commencement - Also known as graduation. A ceremony during which colleges award certificates of completion and degrees to graduating students.

Continuous Enrollment - The process of registering for and completing courses during consecutive semesters, which may include summer sessions. Determines catalog year for graduation.

Contact Time - The number of 50-minute periods per week that a course should be offered during a standard 16-week semester

Content Outline - An outline reflects the content that will be covered by a course.

Co-requisite - Requirement(s) which must be met concurrently with a course.

Counselor - A faculty member available to help you with personal, career, or school-related questions.

Course - A specific subject studied within a limited period of time, such as a semester, and taught by a faculty member. Also called course offering or class.

Course Career - When a course is offered as Credit or Non Credit

Course Competencies - Statements which describe skills and/or knowledge students are expected to acquire as a result of completing the course successfully. Includes an Outline Reference (Roman Numerals) which identifies a relationship between a major outline point and a Competency.

Course Component - When a class is offered as a lecture (LEC), a lab (LAB), or a combination of the two; Lecture/Lab (L/L).

Course Description - The brief, official statement of the content and prerequisites and/or co-requisites of each course included in the catalog.

Course Fee - A charge for services, supplies, and/or materials for a course, in addition to tuition and registration fees for the course.

Course ID - A number identifying a course and linked to the Course Bank (repository of all MCCD courses created)

Course Notes - Contains critical course information such as credit/no credit option and course repeat statements.

Course Number - Number that is assigned to a course that provides information about course level and sequence. Numbers range from 001-299. Numbers below 100 are not transferable to Universities and do not apply toward MCCD degrees or certificates (i.e., ENG101 First Year Composition).

Credits - Credit hour is the term used to indicate the value of an academic credit. Credit hours are awarded for the successful completion of a course. In PeopleSoft (Student Information System), the term credit is titled: Units.

Course Prefix - A three-letter code that identifies a specific course and indicates its level and sequence (i.e., ENG in ENG101 indicating a course in First Year Composition).

Course Title - The name of a specific course that indicates subject and content (e.g., First Year Composition, title for ENG101).

Credit Hour - The numerical unit of college credits earned for the satisfactory completion of a specific course. Also referred to as semester hours or units (i.e., 3 credit hours).

Cross-referenced Courses - Two or more disciplines connected to the course. All course elements are identical except for the prefix. Some variation may occur at number level if a number is not available for use.

Curriculum - A series of courses which meet a particular academic or vocational goal. Also called a program of study.

Division - A group of faculty who teach classes in related subjects, such as English, Critical Reading, and Journalism in the Language Arts Division.

Drop/Add Period - The period during which you can make changes in your schedule without penalty. The drop/add period varies with the length of the class.

Electives - Courses a student can select in order to complete a program of study, sometimes with restrictions.
e-Learning - Electronic learning is designed in such a way that the student really, if ever, attends face-to-face classroom setting and most times no in-person interaction may take place. Instruction delivered using e-Learning involves using interchangeably a wide variety of technologies, mainly Internet or computer-based instruction.

E-mail - Electronic mail, a means of sending written messages electronically. Students are automatically assigned a gmail account once registered as a student of SMCC. You will receive student e-mail regarding class enrollment, financial aid, tuition due dates, changes to your class meeting pattern, etc.! Most official college communications will come to you through this account. If you have any problems with your email account or need support, go to: www.google.com/ support.

Enrollment Status - Active, Cancelled, Closed, etc.

Extracurricular Activities - Also known as co-curricular. Activities, clubs, or organizations students may participate in above and beyond their academic courses.

Faculty Instructors

Final Exams - Tests or exercises given at the end of a term that are often comprehensive; that is, they may include all material covered during the semester. The schedule of final exam dates and times for both the fall and spring term is included in the Schedule of Classes.

Fiscal Office - Also known as the Cashier's or Business Office. Students may pay tuition and fees, course fees, and other encumbrances owed the college at the Fiscal Office.

Full Course Descriptions - Information which communicates the content of a course.

Grade Point - The numerical value of a grade multiplied by the credit hours for a course (A = 4 points; B = 3 points;

C = 2 points; D = 1 point). If, for example, a student earns an A in English 101 (3 credit hours), then the students earns 12 points; A = 4 points X 3 (credit hours) = 12 points.

Grade Point Average The average obtained by dividing the total number of grade points earned by the total number of credits attempted.

Grading Basis - GRD or P/Z

Grant - Student financial aid based on need. Grants do not have to be repaid.

Helpdesk - A college service that assists students when they are having technical/computer related problems while enrolled in an Internet course.

Hybrid Class - Delivery of instruction using a combination of multiple approaches to learning that may involve web-based

resources, computer-based training, collaborative activities, moderate discussion, or other as appropriate for the specific course. Content delivery and participation in a hybrid course may range from 25% up to 100% outside of the traditional classroom/lab environment. In most cases, a student will need to attend an orientation the first week of classes in the Technology Center. See also: Blended Learning and e- Learning.

Instruction Mode - Hybrid, Internet, In Person

Internet Class - Classes on the World Wide Web.

Load - Also called academic load. The total number of credit hours taken in a term. Twelve credit hours is considered a full- time load.

Location of Class - The physical location that a class will be held at. Often times, a class is offered through a college but is held at a separate site from the main campus (i.e., offered by SMCC; held at the Guadalupe Center or at a location in Laveen).

Lower Division - First and second year college courses referred to as freshman and sophomore-level (100 and 200) courses offered by a college. Community colleges offer ONLY lower division courses. Four-year institutions offer lower division courses and upper division courses, which are junior- level and senior-level (300 and 400) courses.

Major - An area of concentrated study often for a specific degree or occupation, such as English, nursing, or engineering.

MCCD OR MCCCD - Maricopa County Community College District

MEID - Maricopa Enterprise ID used to log on to My.maricopa.edu to access the Student Center (see Student Center).

Mode of Instruction - Hybrid, Internet or In-Person – The official log-in where students can access the Student Center to perform a variety of functions (i.e., enroll in classes, pay for classes, request transcript, print schedule, etc.)

My.maricopa.edu - The official log in where students can access the Student Center to perform a variety of functions (i.e., enroll in classes, pay for classes, request transcript, print schedule, etc.)

Netiquette - Rules of conduct that defines polite behavior in an email and on the Internet.

New Student Orientation (NSO) | 602.243.8330 - New Student Orientation is designed to provide you with the resources you'll need to maximize your potential and to successfully manage your college experience. This is a great opportunity to meet new friends, interact with faculty and take a campus tour. For more information, contact the Advisement Department.

Official Absence - Absence from class approved by the Dean of Student Services for students who are participants in an official college activity. Students must present approved absence documentation to their instructors before the official absence and make arrangements to complete the work they will miss.

Online - One of the delivery options of a class. You would complete a course by connecting to the Internet and submitting class assignments through Canvas. Online can also be used to describe services that are available to you through the Internet.

Pass/Fail - An option for class registration in which students choose to receive a grade of Pass or Fail in lieu of a letter grade (A, B, C, D, F). Students can earn credits towards graduation by passing these courses but the grades will not count in their GPAs. It is best to check with an advisor to make sure that Pass/Fall grades will transfer to another college or university.

Password - A secret word you use to gain access to a computer system. Some times there are restrictions on the types of characters you can use (i.e., letters, numbers, or incidentals) as well as a maximum number of them. Periodically you will be alerted by a system generated memo to renew your password by a scheduled date in order to continue assessing the system.

Periods - Time spent in class and/or lab each week. One period is equivalent to 50 minutes per week for a one-credit course that meets during a 16-week semester. Sometimes referred to as "seat time".

Placement Test - See Assessment.

Prerequisite - Specified conditions, requirements, or classes that must be completed before enrolling in a class. For example, ENG102 has a prerequisite of ENG101.

Probation - A warning that a student is not in good academic standing. May be accompanied by restricted credit hour enrollment.

Quick Admit - Admitting an individual for a specific term.

Quick Enroll - Registering a Student.

Registration - Actual enrollment of a student into specific courses after the student has been admitted to the college and has received academic advisement.

Required Course - A course that a student must complete to meet certain goals or to complete a certificate or degree program.

Requisites (Pre/Co requisites) - Prerequisites define requirements which must be completed prior to enrollment in a course. Co requisites define requirements that must be met concurrently with a course.

Residential Faculty - Full-time certified, board approved instructors.

Restricted Electives - A listing of selected courses students can choose from to complete a certificate or degree program.

Schedule of Classes - A college publication that lists all courses offered during a semester, including dates and times of class meetings, names of instructors, buildings and rooms, credit hours, and other important registration information.

Scholarships - Student financial aid based on academic achievement, need, or a combination of factors.

Scholarships do not have to be repaid. Student must apply for them through the Financial Aid Office.

Scholastic Suspension - Not being allowed to enroll in the college for one semester. This is caused by not maintaining the minimum required GPA for two consecutive semesters.

Section Number - See Class Number

Semester - Traditionally half an academic year; 16 weeks in length. Fall semester begins in August and spring semester begins in January. Also referred to as "term."

Service Learning - Combines community service with classroom instruction, focusing on critical thinking, value clarification and social responsibility. The key components of Service Learning are linkage to course competencies or objectives, a relevant experience and a meaningful contribution to the community.

SIS - Student Information System (PeopleSoft) is the software each of the colleges in the Maricopa Community College District (MCCD) uses to perform numerous functions related to assist students to register for classes.

SMCC - South Mountain Community College (some times referred to as SM or SMC); board approved to become an established college within MCCD in 1978. Groundbreaking to begin construction was in 1979.

Social Security Number/National ID - A nine-digit number assigned to an individual from the Social Security Administration once an application has been submitted. This number is used by SMCC to identify your records. If you chose not to use your Social Security Number; Confirmation ID's can be obtained at Admissions and Records.

Student Self Service - On-Line Registration

Student Center - Internet access to the Student Center (My.Maricopa.edu) allows you to search for classes, register for classes, view class schedule, drop/withdraw from a class, view financial aid, view changes to account, view grades, register for classes at another Maricopa Community College, request official transcripts and update contact and address information.

Student Services Specialist - A resource person who is able to provide resources to assist a student to plan a career of study and select appropriate courses.

Subject Area/Course Prefix - Three letter designation for the discipline to which a course belongs.

Suffix - Alphabetic characters grouped with the Course Number that often identifies a modularized course. (e.g., AA, AB, BB, AX...).

SUN - Arizona Shared Unique Number – Based on requirements of Senate Bill 1186, the Shared Unique Number (SUN) System was created to help students identify and enroll in courses that transfer as direct equivalents throughout the Arizona public community colleges and state universities. Look in the Official Course Descriptions area of the catalog for courses identified as SUN equivalents.

Syllabus - One or more pages of course requirements that instructors give to students on the first day of class. The syllabus may include detailed information about a course, such as an instructor's grading system, attendance policies, and testing and assignment dates.

Term - A grouping for classes and tuition; a period of time a campus has determined as an instructional accounting period.
• The Term Code consists of 4 digits (i.e., 4166 which refers to the Fall 2016 term.).
• The first number represents an arbitrary number chosen to correspond to the 21st century (i.e., 4XXX).
• The second and third numbers represent the year (X16X).
• The fourth number represents the term of spring (2), summer I (4), or fall (6).

Transcript - An official record of a student's college course work that is maintained by the college registrar. Courses taken, grades, GPA, and graduation information are included on a transcript.

Transfer Credit - Credit earned at other regionally accredited institutions that is accepted at South Mountain Community College to meet requirements in a major or as general education. Credits accepted in transfer do not necessarily apply to all certificates and degrees.

Tuition and Fees - The cost per semester credit unit that students must pay for their college courses. Tuition and fees are determined by the Maricopa County Community College Governing Board.

Units/Credits - The term used to indicate the value of an academic credit.

Upper Division - Courses usually taken during junior and senior years, offered at four-year institutions.

Username - A unique name used to access resources on a computer. If you are registered for an Internet course, your username, along with your password, allows you to get access to course information and the messaging system. In an e-mail address, the characters before the '@' symbol are
the username.

Withdrawal - Officially dropping any or all courses during a semester. Students withdrawing from one or more courses must notify the Admissions and Records Office in writing and requires that they be officially withdrawn. Refunds are based on the refund schedule set forth in the catalog. After a specified date, students must have instructor approval before withdrawing from a course.

COLLEGE PROGRAMS

Achieving a College Education (ACE)

The Achieving a College Education (ACE) program was developed in 1987. South Mountain Community College was the first of the ten (10) Maricopa County Community College District colleges to implement the ACE program.

Achieving a College Education Program (ACE) is a nationally recognized program that targets students who may not consider going to college and attaining a bachelor's degree as an achievable goal. This unique program is specifically designed to help students make a smooth transition from high school to an accredited community college, then moving on to a university in order to complete a bachelor's degree.

ACE students are high school juniors and seniors currently enrolled in college courses while they are attending regular high school. Throughout these two years, ACE students take classes on the SMCC campus in order to experience and acclimate to a college environment in a real-time setting.

Classes meet during the regular summer sessions and every Saturday during the fall and spring semesters. Upon graduating from high school, an ACE student will have earned up to 24 transferable college credits.

The SMCC ACE Program was established in 1987 and was the first ACE Program in the Maricopa County Community College District. Besides attending classes, ACE students and their families participate in an orientation and a series of ongoing activities and events such as financial aid workshops designed to keep them informed and connected throughout the two years.

It is important to recognize that ACE students enrolled at one of the Maricopa Community Colleges are considered college students with all the corresponding rights, responsibilities, privileges and benefits.

Once an ACE prospective student has been accepted into the program the student and their families participate in an orientation and a series of activities and events. These events ranged from workshops designed to keep them informed and connected during their two years with ACE. These workshops focus on such issues as financial literacy, 7 Habits of Highly Effective Teens, Transfers Information, Personal Essay, Plagiarism, Notetaking and Time Management.

Bilingual Nursing Fellowship Program (BNFP)

The Bilingual Nursing Fellowship Program (BNFP) is designed to increase the number of nurse graduates who speak, read and write English and Spanish fluently.

BNFP is collaboration between Phoenix College and South Mountain Community College.
It is anticipated that each Fellow will complete an AAS in Nursing and obtain a nursing license within three years after acceptance into the program.

PROGRAM ADVANTAGES
• Tutoring
• Employment Assistance
• Nurse Mentors

Bilingual Nursing Fellowship Program Advisor
Phone: 602.243.8269, Fax: 602.243.8263

Developmental Education

South Mountain Community College offers a wide range of developmental education courses and programs. Developmental mathematics, reading and English courses are embedded within the appropriate instructional divisions.

Newly enrolled students are required by MCCCD policy to take the ASSET reading, mathematics and English tests. Based on assessment results, students are advised to enroll in the appropriate courses to prepare them for 100 level transfer or occupational focused courses. By Maricopa District policy, students have the right to waive the assessment and placement recommendations.

The division chairs are responsible for signing the waiver forms if requested by students.

English as a Second Language (ESL)

Program Administrator: Dr. Steven Fountaine, 602.305.5648

The intensive English Program at SMCC is intended to prepare students for the world of work as well as for a college degree program. It also allows qualified students to earn college credit while learning English as a Second Language. Classes are designed to reinforce and build on one another and our wide range of support services will help you achieve your goals. English as a Second Language Program has been in existence for over 25 Years.

Experienced faculty with advanced degrees provides instruction for four levels of ESL courses. Our class size is small to ensure attention to the student and free tutoring and other academic support services are available.

An applicant for admissions to the Intensive English must complete the application process as set forth by the Maricopa County Community College District policy. Admission forms and application are on line or simply contact the Admissions and Records Office of SMCC. Tuition will vary according to classification of student's status. For more information on cost please contact either the Admission and Records Office or the Business Services Department (Cashiers).

Fitness Center

The Fitness Center offers a personalized fitness program for individuals 16 or older and of all level of ability. The facility has an extensive selection of cardiovascular and strength training equipment and is staffed with Fitness Center technicians at all times who provide the necessary attention and expertise required for safe and effective exercise sessions. New members are required to attend an orientation which includes a health assessment and instruction on proper use of the equipment; and then they may attend the center at any time during hours of operation.

It is the goal of the Fitness Center to be an educational source for wellness, and fitness related information. The Center also participates in several local health fairs each year.

High School Dual Enrollment
602 872-7756

South Mountain Community College partners with several valley high schools to offer dual enrollment credit for academic and occupational classes. Dual enrollment courses are held on high school campuses and are taught by high school instructors who have met community college hiring qualifications. Registration is coordinated on the high school campus. Through dual enrollment we strive to ease the transition from high school to college and to increase the number of college-bound high school students in our community.

Honors Program

The Honors Program provides opportunities for students and faculty to engage in stimulating and challenging intellectual activities throughout the semester.

The Honors Program is open to recent high school graduates, returning college students and continuing students who meet the eligibility criteria. Honors students receive substantial scholarships and/or honors achievement award.

The College Honors program is designed to enhance students' intellectual growth by offering challenging classes and increased contact with other Honor students. The program includes Honors sections of general education classes (through concurrent sections or contract format), faculty mentors, special activities, and Forum presentations which permit students to hear and talk with prominent lecturers.

What is the Honors Contract?
Students have two options to earn Honors credit. They can either enroll in an Honors class, or they can work with their instructor to complete an Honors project, thus turning their class into an Honors class. The specifics of the Honors Project are documented in an Honors Contract.

In other words, Honors Project is simply an opportunity for students to explore a topic in depth, the Honors Contract is the plan of what is to be studied, when the student will meet with the instructor to review the his or her progress, etc. Why are Honors Contracts important?
- To maintain their scholarships, Presidents? Scholars either take an Honors class or complete an Honors project every semester.
- Academic Achievement Award recipients must complete an Honors Project every semester.

To graduate from the Honors Program, students must be graduating from SMCC with 15 credits of Honors classes, including 3 credits of HUM190 (Honors Forum) and 12

additional Honors credits in at least 3 different prefixes. In addition, students must have a cumulative GPA of 3.5.

Benefits of Honors Program participation include substantial scholarships and/or honors achievement award, scholarship recommendations, eligibility for special Honors Foundation scholarships, campus luncheons and dinners with Honors students, and provisional membership in Phi Theta Kappa, the international honor society for the two-year colleges.

Students who are graduating from SMCC are also eligible to graduate the Honors Program. Graduates are eligible to wear an "Honors Program Graduate" medallion and to have special recognition in the commencement program if they complete
15 credits of Honors classes, including: 3 credits of HUM190 (Honors Forum) and 12 additional Honors credits in at least 3 different prefixes, with 3.5+ cumulative GPA.

Entering high school graduates who were ranked in the top 15 percent of their class (or with high college placement test scores) are eligible to apply, as are continuing or transfer students with a cumulative GPA of at least 3.25 for 12 college level hours. Students enrolled in the Honors Program are required to take at least one Honors course each semester.

and maintain a civil campus environment that values diversity. In addition, the IES Office presents the campus community with a wide variety of events/projects that will increase the student knowledge of culturally different groups and maintain cultural sensitivity and visibility throughout the campus.

In particular, the IES Office aids in recruitment and increased enrollment of international students, supports an international student club (International Friends), works closely with the English as a Second Language program, creates and distributes SMCC information in other languages, supports faculty for international/intercultural projects and supports students with Study Abroad Programs.

Opportunities for International Students at SMCC
The IESO at SMCC offers several educational opportunities for global awareness and sharing for international students. These include:
• International Friends student club (events and activities for international students)
• International Week (fall and spring semesters) promoting global awareness

Other students may petition to take Honors courses and receive Honors credit. Applications are available in the:

Honors Office (SS-129) or by contacting the Honors Program Coordinator Nancy Deegan at (602) 305-5877

International Education Services

Coordinator of International Services/Chair International/ Intercultural Committee:
Dr. Steven J. Fountaine (602) 305-5648

The office of International Education Services at South Mountain Community College promotes global awareness among students, faculty and staff, advises the college community about college issues related to various services needed by international students and visitors, and assists in the development of study abroad opportunities for students and staff.

International Education Services at South Mountain Community College is made up of the International Education Office, the International/Intercultural Committee and the Study Abroad Program. The aim of the IES Office is to create

• English Language Conversation Club (conducted by SMCC native English speaking students and volunteers)
• Festivals with Student Life, highlighting different cultures/ethnicities (Native Americans Heritage Week, African-American Month and Hispanic Heritage Month)
• African, Indian, Islamic and Asian cultural festivals (fall and spring semesters)
• Study Abroad programs for language and cultural development (Spain, Czech Republic and Mexico)
• Guest speakers on cultural and educational themes (art and sciences)
• International storytelling
• Tutoring in all subject areas, especially English

Phi Theta Kappa (Honors)
Phi Theta Kappa is the international honor society for community colleges. Alpha Eta Delta, the South Mountain Community College chapter of Phi Theta Kappa, was chartered in 1982. It has earned distinction among 1,100 chapters around the world.

Phi Theta Kappa involves students in numerous leadership development opportunities, service projects and social activities. Phi Theta Kappa members travel to conferences, Honors seminars and conventions across the state, region

and nation. They work on campus as tutors and guides, and provide service for projects in the community.

Many transfer scholarships are exclusively available to Phi Theta Kappa members. Applications for the fall ALL-USA competition and the prestigious Guistewhite Scholarship are available through the Honors Office. Membership is extended by invitation to students after completing 12 credits at SMCC with a cumulative grade point average of 3.5 or higher.

The Storytelling Institute

The South Mountain Community College Storytelling Institute is at the center of a community of storytellers who gather to tell and hear stories of all kinds. The Institute offers foundational and advanced classes in storytelling as part of a program that leads to an Academic Certificate in Storytelling. These classes are open to anyone interested in storytelling and most have no prerequisites. Members of the storytelling faculty, storytelling students, and community storytellers also offer storytelling events throughout the year.

Storytelling is an art form that enriches the community and promotes cultural understanding for adults and children alike. Students, faculty and staff tell personal and family stories or folktales that offer insight into cultural heritage or the human condition. Storytelling is applicable to careers in education, human relations, and any other areas where multicultural sensibility is vital.

The Storytelling Institute offers monthly workshops, numerous concerts, including the fall Myth Informed series and the spring Folktales for Grownups series, plus an annual festival which feature workshops and performances by nationally known tellers, local tellers and student storytellers. Students may earn a 30-credit hour Academic Certificate in Storytelling through the Program in Storytelling.

Storytelling Institute
Director Liz Warren, Storytelling Faculty
Phone: 602-243-8026
Email: liz.warren@southmountaincc.edu Website: https://sites.google.com/site/smcstorytellingnow/home

TRIO Programs

http://students.southmountaincc.edu/studentdevelopment/trio/ Location: Student Union (SU 105)
Hours of Operation:
Fall/Spring Semesters: 8:00 am - 5:00 p.m. M-F Summer

Semester: 8:00 a.m. - 6:30 p.m. M-TH

HOOP of Learning (HOL) |

602.243.8340
South Mountain Community College offers high school students who plan to pursue a college degree two pathways, a two-year Dynamic Learning Teacher Education and General Studies program. Enrollment in these degrees includes guaranteed acceptance of transfer courses to a four-year Arizona institution, and possible internship experience. The Summer Hoop of Learning program is designed to provide American Indian 9th through 12th grade students the opportunity to earn college credits while in high school. The program will consist of a five week summer session offering one orientation course, an academic course and one elective course, preparing the students to enter into their first college semester. In partnership with the Phoenix Union High School District, selected students will receive scholarships for tuition, books and assistance for transportation.

Selected applicants are required to complete the Accuplacer placement test in reading, English, and math in the Student Enrollment Services (SES) center at South Mountain Community College. Student test scores will determine appropriate placement in academic courses. In addition, South Mountain Community College will host a student/parent orientation and registration session and a financial aid seminar for graduating seniors.

Students participating in the program at South Mountain can complete as many as 24 college credits that transfer to the three Arizona Universities.

For more information, please contact the TRIO Office at (602)
305-5676. Location: Student Services (SS) building, room 106.
http://students.southmountaincc.edu/Support/HOOP/

STEP Program
The STEP Program is sponsored by South Mountain Community College and is 100% federally funded through a grant from US Department of Education TRIO Programs totaling $1,100,000.
Why Choose STEP?
The program provides qualifying students with:
• Priority Registration
• Free English & Math Tutoring
• College Orientations
• Financial Aid Assistance
• One-on-One Academic Advising
• Cultural Enrichment
• University Tours
• Workshops (Career, Transfer, and Personal Development)
• Application Fee Waivers
• Calculators, Tape Recorders, and Laptops (available for student borrowing)

Eligibility Criteria
To be eligible for STEP, a student must be a first generation college student, low income, or disabled, and committed to transferring to a four-year institution.
• Be a full-time student (12 units or more),
• Maintain a 2.5 grade point average or better,

• Be a US Citizen or National of the United States or meet the residency requirements for federal student financial assistance,
• Submit a completed application to the TRIO Office.

For an Application Form or additional information, please contact our TRIO office at 602.305.5676 or visit us in the Student Union (SU 105).

Upward Bound Program
Upward Bound is federally funded through the U.S. Department of Education's TRIO Program. It was created primarily to provide fundamental support to low-income high school students; students whose parents have not completed a bachelor's degree; and low-income and/or first-generation students, as they prepare to enter college.

SMCC, in partnership with Upward Bound, provides participants with academic instruction in mathematics, laboratory sciences, composition, literature, and foreign languages. Other services include: tutoring, counseling, mentoring, cultural enrichment, SAT/ACT preparation, and work study programs.

Contact: TRIO Programs
Office #: (602) 305-5677

Current SMCC Certificates & Degrees for 2016 - 2017

SMCC Programs

ACCOUNTING
Accounting (5665) 23-26 Credits
Accounting (3149) 60-65 Credits

BEHAVIORAL HEALTH SCIENCES
Advanced Behavioral Health Sciences (5521) 48 Credits
Advanced Behavioral Health Sciences (3067) 67-72 Credits
Basic Behavioral Health (5522) 19 Credits
Recovery Support (3032) 70-72 Credits

BUSINESS/ENTREPRENEURIAL STUDIES
Business Management (3054) 66-67 Credits
General Business (5683) 21 Credits
General Business (3148) 61-66 Credits
Entrepreneurial Studies: Level I (5819) – 10-11 Credits
Entrepreneurial Studies: Level II (5820) – 18-19 Credits
Management (5729) 18 Credits
Small Business Entrepreneurship (5192) 11 Credits
Small Business Start-Up (5706) 12 Credits

EARLY CHILDHOOD EDUCATION
Child Development Associate (CDA) Preparation (5710) 16 Credits
Family Child Care Management (5714) 16 Credits
Infant and Toddler Development (5715) 16 Credits
Early Learning and Development (3124) 63-68 Credits
Instructional Assistance (5119) 27 Credits

ENGINEERING
Engineering Technology (3228) 63-93 Credit

EXERCISE SCIENCE
Exercise Science and Personal Training (3059) 64-69.5 Credits
Personal Training Specialist (5445) 32-34.5

INFORMATION TECHNOLOGY
General IT; Applications - Certificates/Degrees
Information Technology Support (5163) 21-22 Credits
Informational Technology: Computer Applications Specialist (5201) 36-38 Credits
Computer and Information Technologies (3167) 60-64 Credits

Informational Technology: Computer Applications Specialist (3098) – 61-65 Credits

Networking - Certificates/Degrees
Informational Technology: Cisco Networking (5526) 41 Credits
Informational Technology: Cisco Networking (3095) 63-71 Credits
Informational Technology: Network Security (5530) 40-41 Credits
Informational Technology: Network Security (3097) 62-68 Credits
Informational Technology: Network Server (5529) 39-40 Credits
Informational Technology: Network Server (3096) 61-67 Credits
Linux Professional (5204) 12 Credits
Networking Administration: Cisco (5969) 14-18 Credits
Network Administration: Cisco Network Professional (5328) 16 Credits

Web/Graphics: Programming - Certificates/Degrees
Adobe Creative Suite in Business: Master Suite Applications Specialist (5778) 33-39 Credits
Adobe Creative Suite in Business: Print and Web Applications Specialist (5780) 24-30 Credits
Adobe Creative Suite in Business: Production Applications Specialist (5782) 18 Credits
Adobe Foundations (5807) – 9 Credits
Informational Technology: Android/iOS Programming (5834) 12-15 Credits
Informational Technology: Microsoft Programming (5833) 12-15 Credits
Informational Technology: Programming and Mobile Development (5193) 36-39 Credits
Informational Technology: Programming and Mobile Development (3099) 61 Credits
Informational Technology: Web & Graphic Design (5168) 36-38 Credits
Informational Technology: Web and Graphic Design (3100) 60-65 Credits
Mobile Apps Programming (5793) 16-45 Credits
Mobile Apps Programming (3139) 62-64 Credits
Web Application Development (5835) 12 Credits
Web Design (5159) 18 Credits
Programming (5047) 21-26 Credits

MANAGEMENT
Management (5729) 18 Credits
Retail Management (5286) 24 Credits
Retail Management (3048) 61-63 Credits

Supervision & Management I (5721) 15 Credits
Supervision & Management II (5722) 30-31 Credits

MARKETING/SOCIAL MEDIA
Marketing (5094) 18 Credits
Social Media Marketing (5830) 17-20 Credits

MUSIC BUSINESS
Music Business (5258) 26 Credits
Music Business (3017) 60-63 Credits

PHARMACY
Pharmacy: Customer Service (5348) 17 Credits

PHLEBOTOMY
Phlebotomy (5279) 7 Credits

REAL ESTATE
Real Estate Pre-license (5139) 6.5 Credits

STORYTELLING
Storytelling (6200) 30 Credits

SUSTAINABILITY
Sustainability (6240) 15-17 Credits
Sustainability/Ecological Literacy (6232) 16 Credits

Academic and Occupational Certificates and Degrees Offered at South Mountain Community College:

ACCOUNTING
Chairperson: Mark Nielsen
Division of myCareer, Library and Center for Teaching & Learning (mCLCTL)

Certificates/Degrees
Certificate of Completion in Accounting (5665)
Associate in Applied Science in Accounting (3149)

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

ACC105 Payroll, Sales and Property Taxes 3
+ ACC115 Computerized Accounting 2
CIS114DE Excel Spreadsheet 3
CIS105 Survey of Computer Information Systems 3
GBS151 Introduction to Business 3
GBS205 Legal, Ethical and Regulatory Issues in Business 3

Associate in Applied Science in Accounting: 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 corequisites.
++ 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). 0-3

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) 6-9

ACC105 Payroll, Sales and Property Taxes 3
+ ACC115 Computerized Accounting 2

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

CIS114DE Excel Spreadsheet　　　3
CIS105 Survey of Computer Information Systems 3
GBS151 Introduction to Business　　3
GBS205 Legal, Ethical and Regulatory Issues in
Business　　　　3
+ GBS233 Business Communication　3

Restricted Electives: Credits: 9
ACC+++++　Any ACC Accounting course(s) except
courses used to
　satisfy Required Courses area. 9
CIS117DM　Microsoft Access: Database Management
3

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

GBS131　Business Calculations 3
GBS207　Business Law (General Corporate) 3
+ GBS220　.Quantitative Methods in Business 3

General Education Requirement Credits: 22-24

General Education Core: Credits: 12-14

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

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.0

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

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

BEHAVIORAL HEALTH SCIENCES
Chairperson: Dr. Jacqueline (Jacky) Levy
**Division of Mathematics, Science, Engineering,
and Counseling (MSEC)**

Certificates/Degrees
Certificate of Completion in Basic Behavioral Health Sciences (5522)
Certificate of Completion in Advanced Behavioral Health Sciences (5521)
Associate in Applied Science in Advanced Behavioral Health Sciences (3067)
Associate in Applied Science in Recovery Support (3032)

Certificate of Completion in Basic Behavioral Health Credits: 20 (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 corequisites
Students must earn a grade of "C" or better in all courses within the program.

Program Prerequisites: None

Required Courses: Credits: 20
BHS101 Introduction to Ethical Counseling Issues 3
BHS105 Introduction to Human Relations 2
+ BHS151 Communication Skills in Counseling I 3
+ BHS204 Counseling in Multicultural Setting 3
+ BHS205 Therapeutic Intervention Models 3
+ BHS260 Case Report Writing 1
+ BHS290 Child and Family Advocacy 3
BPC101AA Introduction to Computers I 1
CWE198AA Career Work Experience 1

Certificate of Completion in Advanced Behavioral Health Sciences Credits: 48 (5521)

Description: The Certificate of Completion (CCL) in Advanced Behavioral Health Sciences 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 corequisites.
Students must earn a grade of "C" or better in all courses within the program.

Program Prerequisites: None

Required Courses: Credits: 38
BPC101AA Introduction to Computers I 1
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: 10
Note: Students must select one of the following three (3) 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 and Bereavement Recovery 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 Credits: 10
Select a total of 10 credits from the following courses:
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

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:
Students must earn a grade of "C" or better in all courses within the program.
+ indicates course has prerequisites and/or corequisites.
Student must select one of the following tracks in the Restricted Electives area:
Track 1: Violence and Abuse Prevention Track
Track 2: Grief and Bereavement Recovery Track
Track 3: General Integrated Track

Program Prerequisites: None

Required Courses: Credits 38
BPC101AA Introduction to Computers I 1

+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: 10
Note: Student must select one of the following three (3) 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 and Bereavement Recovery 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 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

General Education Requirement: Credits: 19-24

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
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 0-3

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

General Education Distribution: Credits: 7

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

Social and Behavioral Sciences: Credits: 0
Met by PSY101, PSY240 or PSY266 in the Required
Courses area.

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

Associate in Applied Science in Recovery Support 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 Chemical Dependency 3
+ BHS151 Communications Skills in Counseling I 3
+ BHS152 Communication Skills in Counseling II 3
+ BHS156 Supervised Practice I3

BHS178 Peer Training for Behavioral Health
Paraprofessionals (3) OR
+ BHS278 Recovery Coaching (3) 3

+ BHS204 Counseling in Multicultural Setting3
+ 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.

BUSINESS – ENTREPRENEURIAL STUDIES
Chairperson: Mark Nielsen
Division of myCareer, Library and Center for Teaching & Learning (mCLCTL)

Certificates/Degrees

Associate in Applied Science in Business Management (3054)

Certificate of Completion in General Business (5683)

Associate in Applied Science in General Business (3148)

Certificate of Completion in Entrepreneurial Studies: Level I (5819)

Certificate of Completion in Entrepreneurial Studies: Level II (5820)

Certificate of Completion in Management (5729)

Certificate of Completion in Small Business Entrepreneurship: (5192)

Certificate of Completion in Small Business Start-Up: (5706)

Associate in Applied Science in Business Management 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 corequisites. Students must earn a grade of "C" or better for each course listed in the Required Courses area

Program Prerequisites: None

Required Courses Credits: 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
MGT276 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 Purchasing Management 3
MGT253 Owning & Operating a Small Business 3
MGT275 Office Management & Procedures 3
MGT277 Labor Relations 3
MKT263 Advertising Principles 3
MKT267 Principles of Salesmanship 3
+ MGT296WA Cooperative Education (1) OR
+ MGT296WB Cooperative Education (2) OR
+ MGT296WC Cooperative Education (3) 1-3

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
MAT102 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 3

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

Certificate of Completion in General Business: 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
corequisites
Students must earn a grade of "C" or better in all
courses required within the program.

Program Prerequisites: None

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

Restricted Electives: Credits: 9
Any ACC or GBS prefixed courses not listed in the
Required Courses area.
ACC+++++ Any ACC Accounting prefixed courses not
listed under the
GBS+++++ Any GBS General Business prefixed
courses not listed under
Required Courses area. 1-9
IBS+++++ Any IBS International Business prefixed
courses 1-9
MGT+++++ Any MGT Management prefixed courses 1-
9
MKT+++++ Any MKT Marketing prefixed courses 1-9
REA+++++ Any REA Real Estate prefixed courses 1-9
SBS+++++ Any SBS Small Business Management
prefixed courses 1-9

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

Associate in Applied Science in General Business: 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 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: Credits: 3
+CRE101 College Critical Reading (3) OR Equivalent by Assessment 3

Required Courses: Credit 21
ACC111 Accounting Principles I 3
CIS105 Survey of Computer Information Systems 3
GBS110 Human Relations in Business and Industry (3) OR
MGT175 Business Organization and Management (3) OR
MGT251 Human Relations in Business (3) 3

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

3
IBS+++++ Any IBS International Business prefixed courses1-18
MGT+++++ Any MGT Management prefixed courses1-18
MKT+++++ Any MKT Marketing prefixed courses 1-18
REA+++++ Any REA Real Estate prefixed courses 1-18
SBS+++++ Any SBS Small Business Management prefixed courses1-18

General Education Requirement: Credits 22-24

General Education Core: Credits: 12-14

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

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

Critical Reading: Credits: 0
+Met by CRE101 in the Program Prerequisites area. 0

Mathematics: Credits: 3-5
+MAT120 Intermediate Algebra (5) OR
+MAT121 Intermediate Algebra (4) OR
+MAT122 Intermediate Algebra (3) 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
ECN211 Macroeconomic Principles (3) OR
ECN212 Microeconomic Principles (3) OR
SBU200 Society and Business (3) 3

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

Certificate of Completion in Entrepreneurial Studies: Level I 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: Credits: 10-11
EPS150 Introduction to Entrepreneurship

3
EPS160 New Venture Creation

2

EPS180 Technology Business Planning (3) OR
EPS195 Business Start-Up and Planning(2) 2-3

GBS/HEC132 Personal and Family Financial Security 3

Certificate of Completion in Entrepreneurial Studies: Level II 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: 8
EPS161 New Venture Law and Finance 3
EPS165 New Venture Feasibility Analysis 2
MGT253 Owning and Operating a Small Business 3

Certificate of Completion in Management 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 corequisites. 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) OR
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

Certificate of Completion in Small Business Entrepreneurship: 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 9
EPS195 The Business Plan and Business Start-Up 2
SBS200 Small Business Operations 2
SBS202 Small Business Bookkeeping and Tax Preparation 1
SBS203 Financing and Cash Management for a Small Business 1
SBS204 Small Business Marketing & Advertising 2
SBS213 Hiring and Managing Employees 1

Restricted Electives: Credits 2
Students should select two (2) credits from any of the following courses:
SBS211 Small Business Computer Applications 1
SBS214 Small Business Customer Relations 1
SBS215 Managing Stress in Small Business 1
+ SBS216 Planning for a Small Business 2
SBS217 Starting/Managing a Home Business 1
SBS218 Establishing an Import/Export Business 1
SBS220 Internet Marketing for Small Business

2
+ SBS298AA Special Projects

1
MGT253 Owning and Operating a Small Business

3

Certificate of Completion in Small Business Start-Up: 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

Required Courses: Credits: 12
MGT253 Owning & Operating a Small Business

3
MKT271 Principles of Marketing

3
SBS213 Hiring & Management Employees

1
SBS214 Small Business Customer Relations

1
SBS220 Internet Marketing for Small Business

2
SBS230 Financial & Tax Management for Small Business

2

EARLY CHILDHOOD EDUCATION
Chairperson: Dr. Jerome Garrison
Division of Communication, Fine Arts, and Social Sciences (CFASS)

Certificates/Degrees
Certificate of Completion in Child Development Associate (CDA) Preparation (5710)
Certificate of Completion in Family Child Care Management (5714)
Certificate of Completion in Infant and Toddler Development (5715)
Certificate of Completion in Instructional Assistance (5119)
Associate in Applied Science Degree in Early Learning and Development (3124)

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

Description: The Certificate of Completion (CCL) in Child Development Associate (CDA) Preparation program 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
CFS157 Marriage and Family Life (3)

3

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

1

Certificate of Completion in Family Child Care Management (5714)
Program Credits: 16

Description: The Certificate of Completion (CCL) in Family 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 corequisites.

Program Prerequisites: None

Required Courses: Credits 16
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

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 corequisites.
++ indicates any module/suffixed courses

Program Prerequisites: None

Required Courses: Credits 16
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

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

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

Program Prerequisites: None

Program Credits: 27

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

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

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

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

Any foreign language course 3-4

*Associate in Applied Science Degree in Early Learning and
Development (3124) Credits: 63-68*
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
corequisites.
++ indicates any module/suffixed courses.

Program Prerequisites: None

Required Courses: Credits 32
ECH128 Early Learning: Play and the Arts 3
EED200 Foundations of Early Childhood Education 3
EED212 Guidance, Management and the
Environment3
EED215 Early Learning: Health, Safety, Nutrition and
Fitness 3
EED220 Child, Family, Community and Culture 3
EED222 Introduction to the Exceptional Young Child:
Birth to Age Eight 3
EED245 Early Learning: Language Acquisition and
Literacy Development 3
+ EED255 Portfolio Development and Writing for the
Profession 3
+ EED260 Early Childhood Infant/Toddler Internship 1
+ EED261 Early Childhood Preschool Internship 1
+ EED278 Early Learning: Curriculum and Instruction -
Birth/Preschool 3
+ EED280 Standards, Observation and Assessment of
Typical/Atypical Behaviors of Young Children Birth to
Age Eight 3

Restricted Electives: Credits 9
Students must complete one of the following Blocks:

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

Block Two: Family Child Care Management:
CFS163 Family Child Care: Introduction to Business
Management 3
CFS164 Family Child Care: Curriculum and
Environment 3

CFS207 Organization and Community Leadership in Child and
Family Organizations 3

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

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

General Education: 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 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,
 Arts and Design area 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 area4

ENGINEERING
Chairperson: Dr. Jacqueline (Jacky) Levy
Division of Mathematics, Science, Engineering, and Counseling (MSEC)

Certificates/Degrees
Associate of Arts Degree in Engineering Technology (3228)

Associate of Arts Degree in Engineering Technology (3228), Credits: 63-93

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
+CHM152LL General Chemistry II Laboratory (1)
OR
+CHM152AA General Chemistry II (4) 4

+CHM230 Fundamental Organic Chemistry (3) AND
+CHM230LL Fundamental Organic Chemistry Laboratory (1)

OR
+CHM235 General Organic Chemistry I (3) AND
+CHM235LL General Organic Chemistry I Laboratory
(1) 4

+CHM236 General Organic Chemistry IIA (3) OR
+CHM238 General Organic Chemistry IIB (3) 3

+CSC100 Introduction to Computer Science (C++) (3)
OR
+CSC100AA Introduction to Computer Science (C++)
(3) OR
+CSC100AB Introduction to Computer Science (C++)
(4) OR
+CSC110 Introduction to Computer Science (Java) (3)
OR
+CSC110AB Introduction to Computer Science
(Java)(4) 3-4

+ CSC205 Object Oriented Programming and Data
Structures (3) OR
+ CSC205AB Object Oriented Programming and Data
Structures (4) 3-4

+CSC/EEE120 Digital Design Fundamentals (4) OR
+ECE216 Computer-Aided Engineering (2) AND
+ECE216LL Computer-Aided Engineering Laboratory
(1) 3-4

ECE105 MATLAB Programming 1
ECE111 Bioengineering Systems 3
+ECE211 Engineering Mechanics-Statics 3
+ECE212 Engineering Mechanics-Dynamics 3
+ECE214 Engineering Mechanics 4
+ECE215 Mechanics of Materials 3
+CSC/EEE220 Programming for Computer
Engineering3
+CSC/EEE230 Computer Organization and Assembly
Language 4
GLG101 Introduction to Geology I - Physical Lecture 3
+MAT225 Elementary Linear Algebra 3
+MAT227 Discrete Mathematical Structures 3
+PHY241 University Physics III: Thermodynamics,
Optics, and Wave Phenomena 4

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 Area3
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

Mathematics: Credits: 0
Met by any Mathematics course listed in the Required
Courses area.

General Education Distribution Credits: 6

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: 0
Met by PHY115 or PHY121 in the Required Courses
area.

EXERCISE SCIENCE
Chairperson: Mark Nielsen
Division of myCareer, Library and Center for Teaching & Learning (mCLCTL)

Certificates/Degrees
Certificate of Completion in Personal Training Specialist (5445)
Associate in Applied Science Degree in Exercise Science and Personal Training (3059)

Certificate of Completion in Personal Training Specialist (5445) 32-34.5 Credits

Description: The Certificate of Completion (CCL) in Personal Training Specialist program is designed to help prepare students for employment in the fitness industry as a Personal Trainer. This curriculum provides students with a fundamental knowledge of human physiology and anatomy, introduction into career options in the field of Exercise Science, Kinesiology and Physical Education/Coaching, emergency response readiness, health appraisals and assessments; application of exercise fitness principles and strength and cardiorespiratory training techniques; a fundamental knowledge of nutrition, exercise physiology, and biomechanics; skills in exercise testing and fitness measures as well as writing exercise prescriptions and program designs for diverse populations.

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

Program Prerequisites: None

Required Courses Credits: 28-28.5
BIO160 Introduction to Human Anatomy and Physiology (4) OR
+ BIO156 Introductory Biology for Allied Health (4) OR
+ BIO181 General Biology (Majors) I (4) 4

EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR)

for Health Care Providers (0.50) OR
HES106 Cardiopulmonary Resuscitation (CPR)/Automated External
 Defibrillator (AED) (0.50) OR
Current Basic Life Support (BLS) Health Care Provider/Professional
Rescuer certification 0-0.50

EXS101 Introduction to Exercise Science 3
EXS112 Professional Applications of Fitness Principles 3
EXS125 Introduction to Exercise Physiology 3
EXS130 Strength Fitness: Physiological Principles and Training Techniques 3
EXS132 Cardiovascular Fitness: Physiological Principles and
Training Techniques 3
EXS145 Guidelines for Exercise Testing and Prescription 3

FON100 Introductory Nutrition (3) OR
FON105 Nutrition Principles for Fitness Professionals (3) OR
FON241 Principles of Human Nutrition (3) 3

+EXS239 Practical Applications of Personal Training Skills and
Techniques Internship (3) OR
+EXS239AA Practical Applications of Personal Training Skills and
Techniques Internship (1) AND
+EXS239AB Practical Applications of Personal Training Skills and
Techniques Internship (2) 3

Restricted Electives Credits: 4-6
Choose a total of 4-6 credits from EXS, FON, HES, SPM, and/or WED courses except courses used to satisfy Required Courses area.

EXS+++++ Any EXS Exercise Science courses
FON+++++ Any FON Food and Nutrition courses
HES+++++ Any HES Health Science courses
SPM+++++ Any SPM Sports Management courses
WED+++++ Any WED Wellness Education courses

Description: The Associate in Applied Science (AAS) in Exercise Science and Personal Training program is designed to prepare students with the knowledge and experience required to be eligible for the American College of Sports Medicine (ACSM) personal trainer certification, the National Strength and Conditioning Association (NSCA) personal trainer certification, the National Academy of Sports Medicine (NASM) personal trainer certification and the American Council on Exercise (ACE) personal trainer certification. The curriculum is designed to strengthen students` educational background in fitness and nutrition potentially increasing their marketability in these fields. This degree may also meet the needs of individuals with existing degrees in such fields as Exercise Physiology, Nutrition, Athletic Training and other health related disciplines. Registered dietitians, clinical exercise physiologists, personal trainers, exercise specialists, strength and conditioning specialists, coaches, athletes and others interested in acquiring knowledge in exercise, nutrition and health may also find this program appropriate.

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

Program Prerequisites: None

Required Courses: Credits: 36-36.5
EMT101 Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers (0.50) OR
HES106 Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED) (0.50) OR
Current Basic Life Support (BLS) Health Care Provider/Professional Rescuer certification 0-0.50

EXS101 Introduction to Exercise Science 3
EXS112 Professional Applications of Fitness Principles 3

EXS125 Introduction to Exercise Physiology 3
EXS130 Strength Fitness-Physiological Principles and Training Techniques 3
EXS132 Cardiovascular Fitness: Physiological Principles and Training Techniques 3
EXS145 Guidelines for Exercise Testing and Prescription 3
EXS214 Instructional Competency: Flexibility and Mind-Body Exercises 2
EXS216 Instructional Competency: Muscular Strength and Conditioning 2
EXS218 Instructional Competency: Cardiorespiratory Exercises and Activities 2

+ EXS239 Practical Applications of Personal Training Skills and Techniques Internship (3) OR
+ EXS239AA Practical Applications of Personal Training Skills and Techniques Internship (1) AND
+ EXS239AB Practical Applications of Personal Training Skills and Techniques Internship (2) 3

FON100 Introductory Nutrition (3) OR
FON105 Nutrition Principles for Fitness Professionals (3) OR
FON241 Principles of Human Nutrition (3) 3

+ FON210 Sports Nutrition and Supplements for Physical Activity 3
+ FON247 Weight Management Science 3

Restricted Electives: Credits: 6
Choose a total of six (6) credits from EXS, FON, HES, SPM, and/or
WED courses except courses used to satisfy Required Courses area.

EXS+++++ Any EXS Exercise Science courses
FON+++++ Any FON Food and Nutrition courses
HES+++++ Any HES Health Science courses
SPM+++++ Any SPM Sports Management
WED+++++ Any WED Wellness Education courses

General Education Requirements Credits: 22-27

General Education Core Credits: 12-17

First-Year Composition Credits: 6

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

Oral Communication Credits: 3
+ COM225 Public Speaking 3

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

Mathematics Credits: 3-5
Any approved general education course from the
Mathematics area except MAT112.
The following courses or higher are recommended:
+ MAT120 Intermediate Algebra (5) OR
+ MAT121 Intermediate Algebra (4) OR
+ MAT122 Intermediate Algebra (3) 3-5

General Education Distribution Credits: 10

Humanities and Fine Arts Credits: 3
Any approved general education course from the
Humanities, Arts and Design area.

Social and Behavioral Sciences Credits: 3
HES100 Healthful Living (3) OR
PSY101 Introduction to Psychology (3) 3

Natural Sciences Credits: 4
BIO160 Introduction to Human Anatomy and
Physiology (4) OR
+ BIO156 Introductory Biology for Allied Health (4) OR
+ BIO181 General Biology (Majors) I (4) 4

INFORMATION TECHNOLOGY
Chairperson: Mark Nielsen
**Division of myCareer, Library and Center for
Teaching & Learning (mCLCTL)**

General IT; Applications - Certificates/Degrees

Certificate of Completion in Information Technology Support (5163)

Certificate of Completion in Information Technology: Computer Applications Specialist (5201)

Associate in Applied Science Degree in Computer and Information Technology (3167)

Associate in Applied Science Degree Information Technology: Computer Applications Specialist (3098)

Networking - Certificates/Degrees

Certificate of Completion in Information Technology: Cisco Networking (5526)

Certificate of Completion in Information Technology: Network Security (5530)

Certificate of Completion in Information Technology: Network Server (5529)

Certificate of Completion in Networking Administration: Cisco (5969)

Certificate of Completion in Network Administration: Cisco Network Professional (5328)

Certificate of Completion in Linux Professional (5204)

Associate in Applied Science Degree Information Technology: Cisco Networking (3095)

Associate in Applied Science Degree Information Technology: Network Security (3097)

Associate in Applied Science Degree Information Technology: Network Server (3096)

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 9-20
CIS105 Survey of Computer Information Systems 3
+CIS190 Introduction 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

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

Required Courses: Credits: 21-22
CIS114DE Excel
Spreadsheet

3
CIS117DM Microsoft Access: Database
Management

3
CIS118DB Desktop Presentation: PowerPoint

3
CIS105

Survey of Computer Information
Systems

3
+CIS190 Introduction to Local Area Networks (3) OR
CNT140 Cisco Networking Basic (4) OR
CNT140AA Introduction to Networks
(4)

3-4
GBS151 Introduction to
Business

3
MST150++ Microsoft Windows (any
MST150++module)

3

Restricted Electives: Credits: 15-16
CIS120AK Introduction to Digital Video Editing

1
CIS120DC Flash: Digital
Animation

3
CIS120DF Computer Graphics: Adobe Photoshop

3
CIS120DH Computer Graphics: Microsoft
Visio

3
CIS121AB Microsoft Command Line
Operations

1
CIS121AE Windows Operating System: Level
I

1
CIS133DA Internet/Web Development Level
I

3
+CIS138DA Desktop Design and Publishing Using Adobe
InDesign

3
+BPC170 Computer Maintenance I: A+ Essentials
Prep

3
CIS126DL Linux Operating
System

3

56

+CIS159 Visual Basic Programming I (3) OR
+CIS162AD C#: Level I (3) OR
+CIS163AA Java Programming: Level I
(3)

3
+CIS169 Introduction to Visual Basic for Applications

3
+CIS214DE Advanced Excel Spreadsheet: Level
II

3
+CIS217AM Advanced Microsoft Access: Database
Management

3
+CIS220DF Advanced Photoshop

3
+CIS238DL Linux System Administration

3
+MST157DA Active Directory Windows Server
Configuration

4

Associate in Applied Science in Computer and Information Technologies: 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

Required Courses: Credits: 9-10
CIS105 Survey of Computer Info. Systems   3

+CIS190 Introduction 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: 26-27
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.

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

Associate in Applied Science Degree Information Technology: Computer Applications Specialist (Credits: 61-65) (3098)

Description: The Associate in Applied Science (AAS) degree in Information Technology: Computer Applications Specialist is designed to enhance the information technology skills gained, focusing on advanced software skills - including application implementation, development, and operating systems - necessary for entry-level software technician 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 for all courses within the program.
Students should select from the following courses in consultation with a department advisor.

Program Prerequisites: Credits: None

Required Courses: Credits: 21-22
CIS114DE Excel
Spreadsheet

3
CIS117DM Microsoft Access: Database Management

3

CIS118DB Desktop Presentation: PowerPoint

3

CIS105 Survey of Computer Information
Systems

3

+CIS190 Introduction to Local Area Networks (3) OR
CNT140AA Introduction to Networks
(4)

3-4

GBS151 Introduction to
Business

3

MST150++ Microsoft Windows (any MST150++
module)

3

Restricted Electives: Credits: 15-16
CIS120AK Introduction to Digital Video Editing

1

CIS120DC Flash: Digital
Animation

3

CIS120DF Computer Graphics: Adobe Photoshop

4

CIS120DH Computer Graphics: Microsoft
Visio

3

CIS121AB Microsoft Command Line
Operations

1

CIS121AE Windows Operating System: Level
I

1

CIS133DA Internet/Web Development Level
I

3

+CIS138DA Desktop Design and Publishing Using
Adobe
InDesign

3

+BPC170 Computer Maintenance I: A+ Essentials
Prep

3

CIS126DL Linux Operating
System

3

+CIS159 Visual Basic Programming I (3) OR
+CIS162AD C#: Level I (3) OR
+CIS163AA Java Programming: Level I
(3)

3

+CIS169 Introduction to Visual Basic for Applications

3

+CIS214DE Advanced Excel Spreadsheet: Level
II

3

+CIS217AM Advanced Microsoft Access: Database
Management

3

+CIS220DF Advanced Photoshop

3

+CIS238DL Linux System Administration

3

+MST157DA Active Directory Windows Server
Configuration

4

General Education Requirement: Credits: 25-27

General Education Core: Credits: 15-17

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

6

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

3

Critical Reading: Credits: 3
Any approved General Education course in the
Critical Reading
Area

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 from
the Natural Sciences
Area

4

Networking Certificates/Degrees
Certificate of Completion in Information Technology: Cisco Networking (5526)
Certificate of Completion in Information Technology: Network Security (5530)
Certificate of Completion in Information Technology: Network Server (5529)
Certificate of Completion in Information Technology: Networking Administration: Cisco (5969)
Certificate of Completion in Network Administration: Cisco Network Professional (5328)
Certificate of Completion in Linux Professional (5204)

Associate in Applied Science Degree Information Technology: Cisco Networking (3095)
Associate in Applied Science Degree Information Technology: Network Security (3097)
Associate in Applied Science Degree Information Technology: Network Server (3096)

Certificate of Completion in Information Technology: Cisco Networking Credits: 41-44 (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 corequisites.
++ indicates any module/suffixed courses.

Program Prerequisites: Credits: 0-3
CIS105 Survey of Computer Information Systems (3) OR Permission of Program Director   3

Required Courses Credits: 41
CNT140AA Introduction to Networks 4
+ CNT150AA Cisco - Routing and Switching Essentials 4
+ CNT160AA Scaling Networks 4
+ CNT170AA Cisco - Connecting Networks4

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

Certificate of Completion in Information Technology: Network Security Credits: 40-41 (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 System3
CNT140AA Introduction to Networks (4)4
+CNT150AA Cisco – Routing and Switching Essentials (4) 4
+CNT160AA Scaling Networks4
+CNT170AA Cisco – Connecting Networks4
+CNT205 Cisco Certified Network Associate Security4
+CNT202 Cisco Secure Firewall Appliance Configuration4
+ITS110 Information Security Fundamentals4
MST150++ Microsoft Windows (any MST150++ module)3
+MST157DA Active Directory Windows Server Configuration 4

Restricted Elective: 3-4
+ CIS238DL Linux System Administration3
+ MST15+ Microsoft Windows (any MST15++ module)3-4
+ MST2++ Microsoft (any MST2++ module) 3-4
BPC170 Computer Maintenance I: A+ Essentials Prep3
+BPC270 Computer Maintenance II: A+ Technician Prep3
+CNT2++ Cisco (Any CNT2++ Module)4

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

Required Courses: Credits 32
CIS126DL Linux Operating System3
+CIS238DL Linux System Administration3
CNT140AA Introduction to Networks4
+CNT150AA Cisco – Routing and Switching Essentials4
+CNT160AA Scaling Networks4
+CNT170AA Cisco – Connecting Networks4
MST150++ Microsoft Windows (any MST150++ module)3
+MST157DA Active Directory Windows Server Configuration4
BPC170 Computer Maintenance I: A+ Essentials Prep3

Restricted Elective: Credits: 7-8
+ BPC270 Computer Maintenance II: A+ Technician Prep3
+ CIS15+ Programming (any CIS15+) (3) OR
+ CIS15+++ Programming (any CIS15+++ module) (3) 3
CIS190 Introduction to Local Area Networks (3) OR
MST140 Microsoft Networking Essentials (3) 3

+ MST15+ Microsoft Windows (any MST15+) 3-4
+ MST12++ Microsoft (any MST2++) 3-4
+ITS110 Information Security 4
+ CIS239DL Linux Shell Scripting 3

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

One of the following 2 tracks must be fulfilled: Required Courses: Credits: 14-18

Track 1 - Exploration: Credits: 14-18
CNT140 Cisco Networking Basics (4) OR
CNT140AA Introduction to Networks (4) OR
CNT138 CCNA Discovery - Networking for Home and Small Businesses (3) AND
+ CNT148 CCNA Discovery - Working at a Small- to-Medium Business
   or Internet Service Provider
(3)

4-6
+ CNT150 Cisco Networking Router Technologies (4)
OR
+ CNT150AA Cisco – Routing and Switching Essentials
(4)

4
+ CNT160 Cisco Switching Basics and Intermediate
Routing (3) OR
+ CNT160AA Scaling Networks (4) 3-4
+ CNT170 Cisco Wide Area Networks (WAN)
Technologies (3) OR
+ CNT170AA Cisco – Connecting Networks (4) 3-4

Track 2 - Discovery: Credits: 14
CNT138 CCNA Discovery - Networking for Home and
Small Businesses 3
+ CNT148 CCNA Discovery - Working at a Small- to-
Medium Business or Internet Service Provider 3
+ CNT158 CCNA Discovery - Introduction to Routing
and Switching in the Enterprise 4
+ CNT168 CCNA Discovery - Designing and
Supporting Computer Networks 4

Certificate of Completion in Network Administration: Cisco Network
Professional 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 Prerequisites: Credits: 0-4
CNT170AA   Cisco – Connecting Networks (4) OR
Cisco Certified Network Associate (CCNA) Industry
Certification   0-4

Required Courses: Credits: 16
+CNT200 CCNP ROUTE: Implementing Cisco IP
Routing

4

+CNT202 Cisco Secure Firewall Appliance
Configuration (4) OR
+CNT205 Cisco Certified Network Associate Security
(4) OR
+CNT206 Cisco Certified Network Associate Wireless
(4) OR
+CNT208 Cisco Certified Network Associate Voice
(4)

4

+CNT220 CCNP SWITCH: Implementing Cisco IP
Switching

4
+CNT231 CCNP TSHOOT: Maintaining and
Troubleshooting
  Cisco IP Networks

4

Certificate of Completion in Linux Professional 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 corequisites.
++ 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: 6

CIS126DL Linux Operating
System

3
+ CIS238DL Linux System Administration

3

Restricted Electives: Credits: 6
+ 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

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 corequisites.
++ 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

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

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

Associate in Applied Science Degree Information Technology: Network Server 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 4
Any approved General Education course in the Natural Sciences
Area

4

Certificate of Completion in Adobe Creative Suite in Business: Master Suite Applications Specialist: Credits: 33-39 (5778)

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 Graphics

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

Certificate of Completion in Adobe Creative Suite in Business: Print and Web Applications Specialist: 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 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 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

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 Computer Graphics: Adobe Photoshop

3
CIS120DB Computer Graphics: Adobe Illustrator

3
CIS120DC Flash: Digital Animation

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: 15-16
CIS117DM Microsoft Access: Database Management

3
CIS120DC Adobe Flash Level I: Digital Animation

3
CIS120DF Adobe Photoshop Level I: Digital Imaging

3

CIS126AL Linux Operating System I (1) OR
CIS126DL Linux Operating System (3) 1-

3

CIS133++ Any Internet/Web Development (totaling 3 credits)

3

+ CIS162AD C#: Level I (3) OR
+ CIS163AA Java Programming Level: I

3

+ CIS166++ Web Scripting (Any module)

3
+ CIS217AM Advanced MS Access: Database Management

3
+ CIS220DC Flash: Advanced Animation and ActionScript

3
+ CIS250 Management of Information Systems

73

3

+ CIS259 Visual Basic Programming II

3

+ CIS262AD C#: Level II

3

+ CIS263AA Java Programming: Level II

3

+ CIS298AA Special Projects

1

Certificate of Completion in Adobe Fundamental: 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: 9
CIS120DF Computer Graphics: Adobe Photoshop 3
CIS120DB Computer Graphics: Adobe Illustrator 3
CIS120DC Flash: Digital Animation 3

Certificate of Completion in Information Technology: Android/iOS Programming: Credits
12 (5834)

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 iPhone Application Programming
        3
+ CIS165DA Android Mobile Device Programming 3
+ CIS263AA Java Programming: Level II   3

Restricted Electives: Credits: 0

Certificate of Completion in Information Technology: Microsoft Programming: Credits
12 (5833)

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: 12-15

+ CIS159 Visual Basic Programming I

3
+ CIS162AD C#: Level I

3
+ CIS165DB C#/VB.NET:Windows 8 App Development

3

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

3

Restricted Electives: None

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 corequisites.
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: 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 iPhone Application Programming

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: None

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

Required Courses: Credits: 27
CIS105 Survey of Computer Info. Systems

3
CIS120DB Computer Graphics: Adobe Illustrator

3
+ CIS120DC Flash: Digital Animation

3
+ CIS120DF Computer Graphics: Adobe Photoshop

3
CIS133DA Internet/Web Development Level I

3
+ CIS220DC Flash: Advanced Animation and ActionScript

3

+ CIS220DF Advanced Photoshop

3
+ CIS233DA Internet/Web Development Level II (3) OR
+ CIS233DC Internet Web Development: Dreamweaver

3
+ CIS235 e-Commerce

3

Restricted Electives: Credits: 9-11
ART100 Introduction to Computer Graphic Art

1
ART111 Drawing I

3
ART112 Two-Dimensional Design

3
+ ART122 Drawing and Composition II

3

ART131 Photography I (3) OR
ART142 Introduction to Digital Photography (3)

3

CIS120AK Introduction to Digital Video Editing

1

CIS120D+ Computer Graphics (any module except DB, DC and DF)

3

CIS126AL Linux Operating System I (1) OR
CIS126DL Linux Operating System (3)

1-3

+ CIS159 Visual Basic Programming I

76

3

+ CIS162AD C# Level I

3

+ CIS163AA Java Programming: Level I

3

+ CIS166++ Web Scripting/Programming (any module)

3

+ CIS190 Introduction to Local Area Networks (3) OR
CNT140AA Cisco Networking Fundamentals (4) OR
MST150++ Microsoft Windows (Any module) (3)

3-4

+ CIS243D+ Internet/Web Development Level III (any module)

3

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

3

GBS151 Introduction to Business

3

Certificate of Completion in Information Technology: Web Application Development Credits: 12 (5835)

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 corequisites.
++ 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
+CIS233D+ Internet Web Development Level II (any module)

3

Restricted Electives: Credits: 0

Certificate of Completion in Information Technology: Mobile Apps Programming: Credits
12 (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 corequisites.

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 Computer Graphics: Adobe Photoshop

3
CIS121AI Mac Operating System

1
CIS132 HTML/CSS

3
+ CIS165 Introduction to iPhone Application Programming

3
+ CIS165DA Android Mobile Device Programming

3
+ CIS165DB C#/VB.NET: Windows 8 Mobile App Development

3

Certificate of Completion in Information Technology: Programming: 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 corequisites.
++ 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 21
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

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 corequisites.
++ indicates any module/suffixed courses.

Program Prerequisites: None

Required Courses: Credits 18
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

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 Computer Graphics: Adobe Photoshop

3
CIS133DA Internet/Web Development Level I

3

+CIS220DC Flash: Advanced Animation and
ActionScript

3
+CIS220DF Advanced Photoshop

3
+CIS233DA Internet/Web Development Level II (3) OR
+CIS233DC Internet Web Development:
Dreamweaver

3
+CIS235 e-Commerce

3

Restricted Electives: Credits: 9-11
ART100 Introduction to Computer Graphic Art

1
+CIS190 Introduction to Local Area Networks (3) OR
CNT140AA Cisco Networking Fundamentals (4) OR
MST150++ Microsoft Windows (Any MST150++
module)
(3)

3-4
+CIS243D+ Internet/Web Development Level III (any
CIS243D+
module)

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

3
GBS151 Introduction to
Business

3

General Education Requirements: 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
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 from the
Natural Sciences
Area

4

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 corequisites.

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: C r e d i t s : 3 6
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 iPhone Application Programming

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: C r e d i t s : 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)

0-3

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

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

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

Associate in Applied Science Degree in Mobile Apps Programming – 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 corequisites
++ 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) (16-19)

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: 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

MANAGEMENT
Chairperson: Mark Nielsen
Division of myCareer, Library and Center for Teaching & Learning (mCLCTL)

Certificates/Degrees
Certificate of Completion in Management Credits: 18 (5729)

Certificate of Completion in Retail Management Credits: 24 (5286)
Associate in Applied Science in Retail Management Credits: 64 (3048)

Certificate of Completion in Management 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:
Students must earn a grade of C or better for all courses required within the program.
+ indicates course has prerequisites and/or corequisites.

Prerequisites: None

Required Courses Credits: 18
ACC111 Accounting Principles I

3

BPC110 Computer Usage and Applications (3) OR
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

Certificate of Completion in Retail Management 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 24
ACC111 Accounting Principles I (3) OR
ACC211 Financial Accounting (3)

3

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

3

COM100 Introduction to Human Communication

3

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

3

MGT180 Retail Management (3) OR
GBS270AC Business Internship (3) OR
GBS296WC Cooperative Education (3) OR
GBS298AC Special Projects (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

MKT271 Principles of Marketing

3

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

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

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

General Education Requirements: Credits 22-27

General Education Core: Credits: 12-17

First-Year Composition: Credits: 6
+ENG101 First-Year Composition (3) OR

+ENG107 First-Year Composition for ESL (3) AND
+ENG102 First-Year Composition (3) OR
+ENG108 First-Year Composition for ESL (3) OR
+ENG111 Technical 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: 0-3
CRE101   College Critical Reading I (3) OR
Equivalent by
assessment

3

Mathematics: Credits: 3-5
MAT102 Mathematical Concepts/Applications (3) OR satisfactory completion of a higher level mathematics course

3

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

3

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

3

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

Sciences
area.

4

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

Required Courses: Credits 12
CIS105 Survey of Computer Information Systems

3
MGT229 Management & Leadership I

3
+ MGT230 Management & Leadership II

3
MGT251 Human Relations in Business

3

Restricted Electives: Credits 3
Note: Students should select from the following courses in consultation with a departmental advisor.

GBS151 Introduction to Business 3
MGT135 Purchasing
Management

3

MGT277 Labor
Relations

3

MKT263 Advertising
Principles

3

MKT267 Principles of
Salesmanship

3

+MGT296WA Cooperative
Education

1

+MGT296WB Cooperative
Education

2

+MGT296WC Cooperative Education

3

MGT275 Office Management and
Procedures

3

MGT253 Owning and Operating a Small
Business

3

Certificate of Completion in Supervision and Management II 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 15
Certificate of Completion in Supervision and Management I

Required Courses: Credits 15-16
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

MARKETING/SOCIAL MEDIA
Chairperson: Mark Nielsen
Division of myCareer, Library and Center for Teaching & Learning (mCLCTL)

Certificates/Degrees
Certificate of Completion in Marketing Credits: 18 (5094)
Certificate of Completion in Social Media Marketing   Credits: 17-20 (5830)

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	3
MKT110 Marketing and Social	3
MKT268 Merchandising	3
MKT280++ Marketing Internship	1-3

Description: The Certificate of Completion (CCL) in Social Media Marketing is designed to provide useful skills important in a variety of strategic marketing areas, e.g., social media, digital communications, integrated marketing, media relations, and brand management.

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

Program Prerequisites Credits: 0-3
+ENG101 First-Year Composition (3) OR
+ENG107 First-Year Composition for ESL (3) OR
Permission of Instructor (0)

0-3

Required Courses Credits: 17
CIS103 Introduction to Social Media

3

+GBS233 Business Communication (3) OR
+JRN203 Writing for Online Media (3) 3

MKT271 Principles of Marketing

3
MKT110 Marketing and Social Networking 3
+MKT111 Applied Marketing and Social Networking 3
+GBS282AB Volunteerism General Business: Service
    Learning Experience (2) OR
+MKT280AB Marketing Internship (2) OR
+MKT296WB Cooperative Education (2) OR
+MKT298AB Special Projects (2) 2

MUSIC BUSINESS
Chairperson: Dr. Jerome Garrison
Division of Communication, Fine Arts, and Social Sciences (CFASS)

Certificate of Completion in Music Business: 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 corequisites.
++ indicates any module/suffixed courses.
Students must earn a grade of "C" or better for all courses required within the program.

Program Prerequisites: None

Required Courses: Credits 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.

Associate in Applied Science in Music Business: 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 corequisites.
++ 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   3

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

Pharmacy: Customer Service
Chairperson: Dr. Jacqueline (Jacky) Levy
Division of Mathematics, Science, Engineering, and Counseling (MSEC)

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 corequisites.
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

Restricted Electives: None
Free Electives: None

Phlebotomy
Chairperson: Dr. Jacqueline (Jacky) Levy
Division of Mathematics, Science, Engineering, and Counseling (MSEC)

Description: The Certificate of Completion (CCL) in Phlebotomy program is designed to prepare a person to obtain blood specimens by skin puncture and venipuncture. The phlebotomist may find employment in hospitals, patient service centers, life insurance companies, doctors` offices, outreach services, and donor centers. Students in the Phlebotomy program will be in contact with potentially infectious blood, tissues, and body fluids.

Upon satisfactory completion of the program, the students are eligible to take a national certification examination.

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

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

Completion of Program Prerequisites courses with a grade of C or better required prior to admission to

the program. For further information, contact the GRIC academic advisor or the Program Director.

Admission Criteria: High School diploma or GED.

Ability to fully participate in classroom, laboratory, or clinical setting program activities.

Completion of Program Prerequisites courses with a grade of C or better.

Submit current CPR card for Health Care Provider and maintain current status throughout the practicum(s). Proof of current immunization: Measles, Mumps, and Rubella (MMR), Tuberculosis skin test (TB), Varicella, Tetanus/Diphtheria (Td), and Hepatitis B (HEB) vaccine.

Complete and submit the required proof of immunity and health declaration form signed by a licensed health care provider.

Submit to a drug screening and demonstrate negative results.

SOUTH MOUNTAIN STUDENTS:
See the Gila River Indian Community (GRIC) Coordinator or GRIC advisor for admission criteria.

Background Check Requirements
Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Upon conditional program admission, the student must comply with all requirements of the current MCCCD background check policy.

Program Prerequisites Credits: 0-4
Option 1: Credits: 1-4
HCC130 Fundamentals in Health Care Delivery (3) OR Two or more years of documented work experience as a licensed or certified health care provider. 0-3

HCC145AA Medical Terminology for Health Care Workers I 1

Option 2: Credits: 0
HCC130 (3) and HCC145AA (1) are waived for students who have completed an Associate of Applied Science degree or higher degree in a health science discipline from a regionally accredited institution of higher education recognized by the Maricopa Community College District.

Required Courses Credits: 7
+ PLB109 Phlebotomy: Basic Skills 2
+ PLB111 Specimen Processing and Advanced Techniques in Phlebotomy Procedures 2
+ PLB122 Practicum: Phlebotomy and Specimen Processing 3

REAL ESTATE
Chairperson: Mark Nielsen
Division of myCareer, Library and Center for Teaching & Learning (mCLCTL)

Certificates/Degrees
Certificate of Completion in Real Estate: Prelicense 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 place- ment 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

STORYTELLING
Chairperson: Dr. Jerome Garrison
Division of Communication, Fine Arts, and Social Sciences (CFASS)

Certificates
Academic Certificate of Completion in Storytelling: 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

Required Courses: Credits 18
STO289 courses may not be applied to both Required
Courses and Restricted Electives areas.
+STO282AC Volunteerism for Education: A Service Learning
Experience

3
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
STO289AC Using Storytelling in Healing Settings (1) OR
STO289AD Using Storytelling in Interpretive Settings (1)

3
STO292 The Art of Storytelling (3) OR
EDU292 The Art of Storytelling (3) OR
HUM292 The Art of Storytelling
(3)

3
+STO293 The Art of Storytelling
II

3
STO294 Multicultural Folktales (3) OR
EDU294 Multicultural Folktales (3) OR
ENH294 Multicultural Folktales
(3)

3
+STO295 Multicultural Folktales
II

3

Restricted Electives: Credits 12

ENH251 Mythology

3
EDU/ENH291 Children's Literature

3
HUM260 Intercultural Perspectives

3
MUP133 Class Voice I

2
STO101 Storytelling for Literacy

1
STO200AA Biographical Storytelling

1
STO288 Telling Sacred Stories

3
EDU283AA/
STO289AA Using Story in Educational Settings

1
STO289AB Using Story in Business Settings

1
STO289AC Using Story in Healing Settings

1
STO289AD Using Story in Interpretive Settings

1
+STO291AA Storytelling Circle

1-3
+STO297 Telling Personal Stories

3
STO298++ Special Projects (*any module)

1-3
THP112 Acting I

3
THP211AB Creative Drama: Storytelling & Puppets

Chairperson: Dr. Jacqueline (Jacky) Levy
Division of Mathematics, Science, Engineering, and Counseling (MSEC)

Certificates/Degrees
Academic Certificate of Completion in Sustainability: Credits 15-17 (6240)
Academic Certificate of Completion in Sustainability/Ecological Literacy: Credits 16 (6232)

Academic Certificate of Completion in Sustainability: 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 6

SSH111 Sustainable Cities

3
SUS110 Sustainable
World

3

Restricted Electives: Credits 9-12
Students must select one (1) of the following four (4)
tracks:

Track I: Earth Systems Credits: 11-12
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

**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

Academic Certificate of Completion in Sustainability/Ecological Literacy: 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: 3
+ ENG101 First Year Composition (3) OR
+ ENG107 First Year Composition for ESL (3)

3

Required Courses: Credits 7
PHI216 Environmental Ethics

3

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

Restricted Electives: Credits 9
Humanities, Social Science and Wellness: Credits: 9
Students will choose 2 different courses from the following list:
+ ECN263 The Economics of Natural Resources, Population and the Environment (3)
ENH206 Nature and Environmental Literature (3)
ENH260 Literature of the Southwest (3)
HUM201 Humanities: Universal Themes (3)
REC150AB Outdoor Adventure Skills (3)
SBU200 Society and Business (3)

6

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

3

Division myCareer, Library and Center for Teaching and Learning (mCLCTL)
CHAIRPERSON: Mark Nielsen (602) 243-8012
SUBJECTS:

ACC	Accounting
AJS	Administration of Justice Studies
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
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
STO	Storytelling
THE	Theater
THF	Theatre and Film
THP	Theater Performance/Production
YAQ	Yaqui Indian History & Culture (YAQ100)

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
ITA	Italian
NAV	Navajo
RDG	Reading
SLG	Sign Language
SPA	Spanish
SPH	Spanish Humanities
WST	Women's Studies
YAQ	Yaqui Indian Language (YAQ110)

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
BHS	Behavioral Health Sciences

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
SSH   Sustainability –Social Sciences/Humanities
SUS   Sustainability/Natural Sciences
SWU   Social Work

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 2201
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:

ACC260 – Certified Bookkeeper (CB) Preparation Seminar I
LEC   2 Credits   2 Periods
Fundamental accounting practices including accrual and deferral adjustments, correcting common transaction recording errors, bank reconciliations and adjusting entries. Includes payroll accounting and related Federal and State payroll law requirements. Accounting for depreciation for financial and tax accounting purposes covered. Prerequisites: ACC111 or ACC211 or (bookkeeping experience and permission of Instructor)

ACC262 – Certified Bookkeeper (CB) Preparation Seminar II
LEC   2 Credits   2 Periods

Inventory valuation methods. Includes calculating, recording, and reporting under generally accepted accounting principles (GAAP). Preventive internal control procedures to detect organizational fraud, theft, and embezzlement covered. Prerequisites: ACC260

AMERICAN INDIAN STUDIES (AIS)
AIS110 – Navajo Government
LEC   3 Credits   3 Periods
Addresses and examines major historical developments of the Navajo People with a focus on government, law, society, livelihood, tradition, and culture. Includes the major components and operation of Navajo government and related tribal laws, such as Title II and Title VII of the Navajo Nation Code, as well as the significance of the Treaty of 1868. Federal Indian policies and their impact on Navajo society and government, the importance of federal and tribal citizenship and related federal and tribal laws, and the role of the Navajo clanship system and other relevant cultural concepts addressed. Prerequisites: None 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.

AJS230 – The Police Function
LEC   3 Credits   3 Periods
Theories of procedures and methods of operations of public police with emphasis on discretionary powers available to the working police officer. Career opportunities and current trends in law enforcement presented. Prerequisites: None

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

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
ART1101
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
ART1102
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   ART1111
LEC + LAB 3 Credits   6 Periods
Fundamental principles of drawing. Emphasis on composition and facility in objective and expressive representation, using variety of drawing media. Prerequisites: None

ART112 - Two-Dimensional Design
ART 1112
LEC + LAB 3 Credits 6 Periods
Study of fundamental elements and principles of two dimensional design. Prerequisites: None.

ART113 – Color
LEC + LAB 3 Credits   6 Periods
Investigation seeking visual solutions to a variety of problems concerning color in two and three dimensions and modes of color appearances, including light and effects in design and theory of design.

ART122 - Drawing and Composition II
LEC + LAB 3 Credits   6 Periods
Emphasis on composition and exploration of drawing media. Prerequisites: ART111.

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.

ART132 - Photography II
LEC + LAB 3 Credits   6 Periods
Advanced camera and darkroom techniques. Aesthetic awareness with personal expression. Prerequisites: ART131 or permission of instructor.

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)
ASB102 – Culture in a Globalizing World
LEC   3 Credits   3 Periods
Principles of cultural and social anthropology, with illustrative materials from a variety of cultures. The nature of culture; social, political, and economic systems; religion, aesthetics and language. Prerequisites: None   General Education Designation: Global Awareness - [G]; General Education Designation: Social and Behavioral Sciences - [SB]

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: BHS130

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.

BHS152 – Communication Skills in Counseling II
LEC   3 Credits   3 Periods
Application 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: BHS151 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
Introductory 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 chemistry concepts. Structure and function of the major systems of the body.

Prerequisites: None. General Education Designation: Natural Sciences (General) - [SG]

BIO174 – Biosafety
LEC 1 Credits 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)
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) - [SG]

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 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]

BIO298AC - Special Projects
LEC + LAB3 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.

BUSINESS-PERSONAL COMPUTERS (BPC)
BPC100 - Business-Personal Computers
LEC 2 Credits 2 Periods
Introduction to the use of personal computers in the business environment. Computer hardware components,

operating system functions and concepts. Procedures for running and using business application software to produce documents and spreadsheets. Prerequisites: None.

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: OAS111AA

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)
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]

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. Implications for teachers and parents. Emphasis on observations and planning curriculum based on theories, research, and child-specific data. Prerequisites: None. General Education Designation: Social and Behavioral Sciences - [SB]

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: ECH284A A

CFS296WA-WC - Cooperative Education
LAB   1-3 Credit5-15 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
LAB   1 Credit   3 Periods
Laboratory experience in support of CHM107. Prerequisites or Co-requisites: CHM107. General Education Designation: Natural Sciences (Quantitative) - [SQ]

CHM130 - Fundamental Chemistry
CHM1130
LEC   3 Credits   3 Periods
A survey of the fundamentals of general chemistry. Emphasis on essential concepts and problem solving techniques. Basic principles of measurement, chemical bonding, structure and reactions, nomenclature, and the chemistry of acids and bases. Preparation for students taking more advanced courses in chemistry. Designed to meet needs of students in such diverse areas as agriculture, nursing, home economics, physical education and water technology. Prerequisites: Grade of "C" or better in [CHM090 or MAT090 or MAT091 or MAT092, or (MAT092AA and MAT092AB) or MAT093, or (MAT103AA and MAT103AB), or higher or satisfactory score on math placement exam] and [RDG091 or higher or eligibility for CRE101 as indicated

by appropriate reading placement test score]. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with CHM130LL

CHM130LL - Fundamental Chemistry Laboratory
CHM1130
LAB   1 Credit   3 Periods
Laboratory experience in support of CHM 130. Prerequisites or Co-requisites: A grade of "C" or better in CHM130.
General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with CHM130

CHM151 - General Chemistry I
CHM1151
LEC   3 Credits   3 Periods
Detailed study of principles of chemistry for science majors and students in pre-professional curricula. Prerequisites: (CHM130 and CHM130LL), or (one year of high school chemistry with a grade of C or better taken within the last five years), and completion of intermediate algebra or equivalent. Completion of all prerequisites within the last two years is recommended. 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) - [SQ] in combination with CHM151LL

CHM151LL - General Chemistry I Laboratory
CHM1151
LAB   1 Credit   3 Periods
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) - [SQ] in combination with CHM150 or CHM151

CHM152 - General Chemistry II
CHM1152
LEC   3 Credits   3 Periods
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 CHM150A A, 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) - [SQ]   Arizona Shared Unique Number SUN# CHM1152

CHM152LL - General Chemistry II Laboratory
CHM1152
LAB   1 Credit   3 Periods
Laboratory experience in support of CHM 152.
Prerequisites or Corequisites: A grade of "C" or better in CHM 152.
Course Notes: Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with CHM152. Arizona Shared Unique Number SUN# CHM1152

CHM154 - General Chemistry II with Qualitative Analysis
LEC   3 Credits   3 Periods
A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, kinetics, electrochemistry, and other selected topics. Includes qualitative analysis. Prepares students for all sophomore chemistry courses. Course Notes: Completion of CHM154LL required to meet the Natural Science requirement. Prerequisites: A grade of "C" or better in [(CHM150 or CHM151) and CHM151LL] or CHM150AA. Completion of prerequisites within the last two years recommended. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM154LL

CHM154LL - General Chemistry II with Qualitative Laboratory
LAB   2 Credits   6 Periods
Laboratory experience in support of CHM 154. Includes quantitative analysis. Prerequisites or Corequisites: A grade of "C" or better in CHM154.   General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM154

CHM235 - General Organic Chemistry I
CHM2235
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
CHM2235
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
CHM2236
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
CHM2236
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)

CIS103 – Introduction to Social Media
LEC + LAB 3 Credits   4 Periods
Identify and explain social media and Web 2.0 technologies for personal, academic, professional, and business applications. Create and maintain accounts on various sites to socialize, write, and share multimedia, while understanding the related ethics, privacy and security issues. Prerequisites: None

CIS105 - Survey of Computer Information Systems
CIS1120
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]

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.

CIS117CM - Database Management: Microsoft Access – Level III
LEC + LAB 1 Credit   1 Periods
Application of the features of the Microsoft Access program to some common database management problems. Prerequisites: CIS117BM.

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 Credits   2 Periods
Use of PowerPoint software to produce professional-quality presentation visuals. Prerequisites: None.

CIS118DB - Desktop Presentation: PowerPoint
LEC + LAB 3 Credits   5 Periods
Use of PowerPoint to produce professional-quality presentation visuals with animation and sound. Prerequisites: None.

CIS119DO – Introduction to Oracle: SQL
LEC + LAB 3 Credit   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   2 Periods
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: CIS120BF

CIS120DA – Introduction to Digital Video Editing: Adobe Premiere
LEC + LAB 3 Credit   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 Credit   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 fil 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 Credit   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 Credit   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 Forma (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
LEC + LAB 3 Credits   4 Periods
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
LEC + LAB 1 Credit   2 Periods
Specific topics include getting started with Mac OS; working with disks, folders, and files; installing and using applications; setting system preferences; printing, faxing, and scanning; getting and living online; using iLife; sharing a Mac with other users; creating a home network; and maintaining the Mac. Prerequisites: None.

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, and task management Prerequisites: None.

CIS126AA - 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.

CIS126AL - 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.

CIS126BL – 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.

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.

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 Development Level I-C

LEC + LAB 1 Credit   1 Periods
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
LEC + LAB 3 Credits   3 Periods
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
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.

CIS162AD - 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]

CIS163AA - JAVA Programming: Level I
LEC + LAB 3 Credit   4 Periods
Introduction to Java programming. Includes features needed to construct Java Applets, Java Applications, control structures, methods, arrays, character and string manipulation, graphics, and object- oriented programming. Prerequisites: CIS105, or permission of Instructor. General Education Designation: Computer/ Statistics/Quantitative Applications - [CS]

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 from concept 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 Java Scripting
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.

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 structures, VBA class modules and error trapping and handling. Creation of customized office applications and network shares as well as multimedia techniques also covered. Prerequisites: CIS159 or permission of instructor.

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.

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.

CIS220DF – 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.

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 debit transaction covered. Also includes current issues in e-commerce. Prerequisites: CIS133CA, or CIS133DA, 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

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
LEC + LAB 3 Credit(s) 5 Period(s)
Introduces skills for entry-level home network installer jobs including personal computer (PC) installation, Internet connectivity, wireless connectivity, file and print sharing, and the installation of peripherals. Provides introduction to networking and the Internet using tools and hardware from home and small business environments. Prerequisites: None.

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 cabling 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 (VLANS), Spanning Tree Protocol (STP) and Virtual local-area Network Trunking Protcol (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 certification examination. Prerequisites: CNT160 or permission of instructor.

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: CNT160AA or permission of Instructor.

CNT171 - CCNA Exam Prep
LEC + LAB 1 Credits   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 Areas 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.

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 office 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 or CNT170AA or Certified Cisco Networking Associate (CCNA) certification or permission of Instructor.

CNT206 - Cisco Certified Network Associate Wireless
LEC + LAB 4 Credits   6 Periods
Associate-level knowledge and skills required in Cisco wireless networks. Includes comprehensive hands-on labs to design, plan, implement, operate, secure, and troubleshoot wireless networks. Prerequisites: CNT170, or CNT170AA, or permission of Instructor. Course Notes: Prepares students to earn Cisco Certified Network Associate Wireless (CCNA Wireless) designation by taking the Implementing Cisco Unified Wireless Networks Essentials (IUWNE) exam.

CNT208 – Cisco Certified Network Associate Voice
LEC + LAB 4 Credits   6 Periods
Introduction to IP telephony for Medium and Small Organizations networks. Covers Packet Voice Technologies, Configuring Voice Interfaces, Voice Dial Peers, VoIP Signaling, Cisco Unified Communications

Manager Express (CUCME), Cisco Unity Express (CUE) and Call Control. Includes data and voice integration solutions at the network-access level. Prerequisites: CNT170 or CNT170AA, or CCNA Certification, or permission of Instructor. Course Notes: CNT208 may be repeated for a total of Twelve (12) credit hours.

CNT220 - CCNP SWITCH: Implementing Cisco IP Switching
LEC + LAB 4 Credits   6 Periods
Development of knowledge and skills in building, monitoring, and maintaining switching in converged enterprise networks using advanced and multi-layer switching technologies. Planning, configuring, securing and verifying the implementation of complex enterprise switching solutions. Hands-on learning and practice to reinforce configuration skills. Prerequisites: CNT170A A or CCNA industry certification, or permission of Instructor. Corequisites: CNT200. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) exam.

CNT231 - CCNP TSHOOT: Maintaining and Troubleshooting Cisco IP Networks
LEC + LAB 4 Credits   6 Periods
Development of knowledge and skills in monitoring and maintaining complex enterprise routed and switched Internet Protocol (IP) networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices, in a systematic approach. Extensive labs emphasize hands-on learning and practice to reinforce configuration skills. Prerequisites: (CNT200 and CNT220), or permission of Instructor. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) exam.

COMMUNICATION (COM)
COM100 - Introduction to Human Communication
📘 COM1100
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]

COM110 - Interpersonal Communication
📘 COM1110
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

COM150 – Digital Storytelling
LEC + LAB 3 Credits   6 Periods
Enables students to find and develop their personal stories. Emphasis on the use of digital technology to create, edit, produce and archive a digital story. Prerequisites: None

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: MCM181

COM225 - Public Speaking
LEC   3 Credits   3 Periods
Designed to enhance the student's ability to present public speeches confidently and competently. Also designed to improve information literacy and critical thinking skills. Prerequisites: ENG101 or ENG107, or equivalent. General Education Designation: Literacy and Critical Inquiry - [L]

COM230 - Small Group Communication
📘 COM2271
LEC   3 Credits   3 Periods
Principles and processes of small groups and development of skills for participation and leadership in small group settings. Practice in problem solving, decision making, and information sharing. Prerequisites: None. General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN# COM 2271

COM263 - Elements of Intercultural Communication
LEC   3 Credits   3 Periods
Basic concepts, principles, and skills for improving oral communication between persons from different

minority, racial, ethnic, and cultural backgrounds. Prerequisites: None. General Education Designation: Cultural Diversity - [C]; Global Awareness [G]; Social and Behavioral Sciences - [SB]

COM271 - 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-References: THP271

CAREER PERSONAL DEVELOPMENT (CPD)
CPD150 - Strategies for College Success
LEC   3 Credits   3 Periods
Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning. Prerequisites: None. Cross-Reference: AAA150

CPD160 – Introduction to Multi-Culturalism
LEC   3 Credits   3 Periods
Examination of the multiple cultures and subcultures within the contemporary United States. Personal exploration of awareness and appreciation of multiculturalism. Activities for experiencing diverse cultural perspectives. Critical thinking skills for recognizing, analyzing, and mediating cultural and psychological factors impacting conflict and accord between diverse cultures through written and oral discourse. Prerequisites: ENG101, or ENG107, or permission of Instructor.

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]

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.

CRW170 – Introduction to Writing Fiction
LEC   3 Credits   3 Periods
Practice in writing fiction through a process of prewriting (invention and discovery), writing, analysis and evaluation (in workshop), and revision; practice in manipulating various elements and forms of fiction. Prerequisites: None. CRW150 recommended but not required.

COMPUTER SCIENCE (CSC)
CSC110 - Introduction to Computer Science – (Java)
LEC + LAB 3 Credits   3 Periods
Concepts of problem solving, structured and object-oriented programming in Java, fundamental algorithms and techniques and computer system concepts. Social and ethical responsibilities. Intended for Computer Science and Computer Systems Engineering Majors. Prerequisites: MAT120 or MAT121 or MAT122. General Education Designation: Computer/Statistics/Quantitative Applications - [CS]

CSC205 – Object Oriented Programming and Data Structures
LEC + LAB 3 Credits   3 Periods
Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms. Prerequisites: CSC110, or permission of Instructor.

CUSTOMER SERVICE REPRESENTATIVE (CSR)
CSR139 - Introduction to Retail Pharmacy Customer Care
LEC   3 Credits   3 Periods
Introduction to the retail pharmacy program. Includes customer care responsibilities, confidentiality, and eligibility status in addition to various types of member inquiries. Also covers quality assurance and Federal and State laws governing controlled substances. Prerequisites: None

CSR156 – Retail Pharmacy Procedures
LEC + LAB 2 Credits   4 Periods

Practical application of retail pharmacy customer care procedures. Includes procedures for accessing accounts, responding to eligibility issues, and completing customer requests. Also covers billing and payment procedures as well as the provision of non-technical web support. Prerequisites: CSR139.

CSR160 – Pharmacy Practice for the Customer Service Representative
LEC   1 Credit   1 Period
Orientation to customer service responsibilities in pharmacy practice. Includes educational and licensure requirements as well as basic functions of the pharmacy and the customer service representative.
Prerequisites:
Permission of Department or Division.

CSR162 – Pharmacy Operations for the Customer Service Representative
LEC   3 Credits   3 Periods
Customer service responsibilities in pharmacy operations. Includes procedures for prescription dispensing and drug distribution in the retail setting. Inventory control, packaging and storage, in addition to computer usage and third party operations.
Prerequisites: CSR160

CSR280AB – Customer Service Internship
LEC + LAB 2 Credits   2 Periods
Customer service experience in business or industry. Eighty hours of designated work per credit. Prerequisites: Permission of Department or Division. Course Notes: Maximum of eight credits allowed.

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.

DAN232 – 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.

DAN280 - Dance Practicum
LEC + LAB 2 Credits   6 Periods
A culmination of coursework for the dance major requiring completion of an extended choreographic work from conception to performance. Also requires a final evaluative paper on the successes and challenges encountered throughout the project. Prerequisites: Permission of instructor.

ENGINEERING SCIENCE (ECE)
ECE102 - Engineering Analysis Tools and Techniques
🔶 EGR1102
LEC + LAB 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 Engineering Analysis Tools and Techniques
🔶 EGR1102 – in combination with ECE103
LEC   2 Credits   2 Periods
LAB   0 Credits   2 Periods

Learning culture of engineering, engineering use of computer tools, and computer modeling as applied to engineering analysis and design. Prerequisites: Two years of high school algebra or MAT122 or departmental approval. Corequisites: MAT151 or MAT182 or MAT187

ECE103 - Engineering Problem Solving and Design
🟧 EGR1102
LEC + LAB 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 ECE102A A) and (high school physics, or PHY111, or PHY111AA).

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
LEC + LAB 3 Credits   3 Periods
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.

ECONOMICS (ECN)
ECN211 - Macroeconomic Principles
🟧 ECN2201
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
🟧 ECN2202
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 Sciences - [SB]; Cultural Diversity – [C]

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 in-service) 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:
STO289AA

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 - 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.

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
LAB   0 Credits   3 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 writing placement test score, or a grade of C or better in ENG081 or ESL087, or permission of Department or Division.

ENG100AE - Composition Skills
LEC   1 Credit   1 Period
Developing generative and evaluative writing skills using selected software programs. Prerequisites: None.

ENG101 - First Year Composition
 ENG1101
LEC   3 Credits   3 Periods
Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a

process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total. Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG091 or ESL097. General Education Designation: First-Year Composition - [FYC]

ENG102 - First Year Composition
🟧 ENG1102
LEC   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]

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]; Literacy and Critical Inquiry- [L]

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]

ENH206 – Nature and Environmental Literature
LEC   3 Credits   3 Periods
Investigates major themes in nature and environmental writing. Explores relationship between humanity and the environment as expressed through fiction, non-fiction, and poetry. Examines how literature drives attitudes and policies 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]

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]

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:

Humanities and Fine Arts – [HU]
ENH294 - 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, STO294 General Education Designation: Humanities and Fine Arts – [HU]; Cultural Diversity[C]

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
Fundamentals of identifying new technologies and innovations for profitable commercial feasibility. Determination of capabilities, resources, and interests of the entrepreneur. Evaluation and selection of technology opportunities. Creation of business concept and plan. Customer development and business models. Finances, venture capital and accounting. Marketing and sales. Legal formation and intellectual property. Operations and resource management. Growth, harvest and success. Prerequisites: None

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)
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.

ESL012 – ESL I-Writing with Oral Practice
LEC   3 Credits   3 Periods
Emphasis on basic conventions of writing in English. Includes introduction to the alphabet, capitalization, punctuation,   and   simple   sentence

structure. Prerequisites: Appropriate ESL placement test score or permission of Instructor. Course Notes: ESL012 may be repeated for a total of six (6) credit hours

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-Listening 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.

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.

ESL061 - 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.

EMPLOYMENT SUPPORT SYSTEMS (ESS)
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.

ESS103 - 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, 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)
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 prescription. Prerequisites: None.

EXS214 – Instructional Competency: Flexibility and Mind – Body Exercises
LEC + LAB2 Credits   3 Periods
Fundamental methods of instructing and leading fitness activities including flexibility activities. Core competencies identified by professional certification agencies. Prerequisites: None

EXS216 – Instructional Competency: Muscular Strength and Conditioning
LEC + LAB2 Credits   3 Periods
Fundamental methods of instructing and leading fitness activities including strength and conditioning activities. Core competencies identified by professional certification agencies. Prerequisites: None.

EXS218 – Instructional Competency: Cardiorespiratory Exercises and Activities
LEC + LAB2 Credits   3 Periods
Fundamental methods of instructing and leading fitness activities including cardiorespiratory exercises and activities. Core competencies identified by professional certification agencies. Prerequisites: None

EXS239 – Practical Applications of Personal Training Skills and Techniques Internship
LEC + LAB3 Credits   5.4 Periods
Work experience in a fitness or health related facility. Eighty (80) hours of designated work per credit.
Prerequisites: Completion of nine (9) credits of EXS courses required for the (AAS in Exercise Science and Personal Training, or CCL in Personal Training Specialist, or CCL in

Personal Trainer), current CPR card, and permission of Department or Division. Course Notes: CPR certification must be current through the duration of the internship. EXS239 may be repeated for a maximum of six (6) credits.

EXS239AA - Practical Applications of Personal Training Skills and Techniques Internship
LEC + LAB1 Credits   1.8 Periods
Work experience in a fitness or health related facility. Eighty (80) hours of designated work per credit.
Prerequisites: Completion of nine (9) credits of EXS courses required for the (AAS in Exercise Science and Personal Training, or CCL in Personal Training Specialist, or CCL in Personal Trainer), current CPR card, and permission of Department or Division. Course Notes: CPR certification must be current through the duration of the internship. EXS239AA may be repeated for a maximum of six (6) credits.

EXS239AB - Practical Applications of Personal Training Skills and Techniques Internship
LEC + LAB2 Credits   3.6 Periods
Work experience in a fitness or health related facility. Eighty (80) hours of designated work per credit.
Prerequisites: Completion of nine (9) credits of EXS courses required for the (AAS in Exercise Science and Personal Training, or CCL in Personal Training Specialist, or CCL in Personal Trainer), current CPR card, and permission of Department or Division. Course Notes: CPR certification must be current through the duration of the internship. EXS239AB may be repeated for a maximum of six (6) credits.

EXS265BA – Baseball Theory of Coaching
LEC   3 Credits   3 Periods
Reviews the principles, philosophy, strategies and theory of coaching baseball, as a competitive sport. Prerequisites: None.

EXS281 – Methods of Coaching
LEC   3 Credits   3 Periods
Comprehensive overview of the art and science of coaching, including development of coaching philosophy, techniques of sport pedagogy, practical application of sports skill teaching, sport physiology, nutrition, sport/team management and self management. Prerequisites: None. PED265 suggested but not required.

EXS281BA – Baseball Methods of Coaching
LEC   3 Credits   3 Periods
Overview of the art and science of coaching baseball including: identifying various coaching styles,

elements of effective communication, methods and techniques of coaching baseball. Prerequisites: None.

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 creditability 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 paraprofessionals 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

FON125 – Introduction to Professions in Nutrition and Diatetics
LEC   1 Credit   1Period
Introduction to professions in nutrition and dietetics, including history, current practice, and future trends. Emphasis on the integration of nutrition and dietetics within health care systems and public policy. Highlights professional ethics, standards of practice, education requirements and areas of practice. Prerequisites: None

FON210 – Sports Nutrition and Supplements for Physical Activity
LEC   3 Credits   3 Periods
 Principles of nutrition applied to fitness, exercise, and sports. Dietary fundamentals as applied to body fuels, hydration, and other unique needs for exercise and sports. Includes dietary guidelines for weight or endurance

training, glycogen loading, the pre-game meal, and glycogen recovery. Emphasis on maximizing fitness, performance, and safety. Discussion of supplements and their effects on metabolic enhancement. Discussion of anabolic, catabolic, and energy-producing agents. Addresses current supplements on the market.
Prerequisites: FON100 or FON241.

FON230 – Nutrition for Special Populations
LEC   3 Credits   3 Periods
Managing and understanding the nutrition needs of special populations. These populations include people who are diagnosed with heart disease, diabetes, women who are pregnant, children who are suffering from obesity, and senior adults. Prerequisites: FON100 or permission of Instructor.

FON241 - Principles of Human Nutrition
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

FON245AA – Practicum II: Medical Nutrition Therapy
LEC   2 Credits   2 Periods
Classroom preparation and training, under the instruction and supervision of a registered dietitian. Understanding of principles, knowledge, and skills required for the delivery of medical nutrition therapy. Comprehension of nutritional screening, assessment, monitoring, and evaluation for common and complex medical conditions, medical documentation, patient interviewing and counseling, and education in health promotion and disease prevention. Prerequisites: FON125, FON242, HCC145AA, and MAT092 or equivalent, or satisfactory score on district placement exam. Corequisites: FON245AB.

FRENCH (FRE)
FRE085AA - Speedy French I
LEC   1 Credit   1 Period
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 FRE1101
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 FRE1102
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.

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
 BUS2201
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]

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: 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.

GBS298AA-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 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.

GEOLOGY (GLG)
GLG101 - Introduction to Geology I – Physical Lecture
GLG1101
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
(Quantitative) – [SQ] in combination with GLG103

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
GLG1101
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 GLC 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

GLG105 – Introduction to Planetary Science
L+L   4 Credit   6 Periods
A survey of solar system objects and their geologic
evolution, surfaces, interiors, and atmospheres, and the
methods used to study them; weekly laboratory for data
analysis and experiments; possible weekend field trip.
Prerequisites: None. General Education Designation:
Natural Sciences (General) - [SG]

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
May accompany GLG 110. Basic geological processes and
concepts. Emphasis on geology-related environmental
problems concerning Arizona. Case histories and

field studies. May require field trips. Prerequisites: None. [GLG110 & GLG111 must be taken as block to meet AGEC value] General Education Designation: Global Awareness – [G]; Natural Sciences (General) – [SG] in combination with: GLG111

PHYSICAL GEOGRAPHY – (GPH)

GPH111 – Introduction to Physical Geography
LEC   4 Credit   3 Periods
LAB   0 Credit   3 Periods
Spatial and functional relationships among climates, landforms, soils, water, and plants. Prerequisites: None   General Education Designation: Natural Sciences (Quantitative) – [SQ]

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]

GPH213 – Introduction to Climatology
LEC   3 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: GPH215

GPH215 – Introduction to Climatology Laboratory
LAB   1 Credit   3 Periods
A mathematical, statistical, and spatial analysis of climatological phenomena. Prerequisites: None. Corequisites: GPH213   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 living activities. Basic communication skills which facilitate teamwork in the health care setting. Focus on development of personal communication skills and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies. Prerequisites: None.

HCC130AF - Decision Making in the Health Care Setting
LEC   0.50 Credit   0.50 Period
Principles and application of a decision making model. Description and application of ethics and process improvement and the relationship of both to the decision making model. Prerequisites: None

HCC145

HEALTH CARE RELATED (HCR)

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]

HES106 – Cardiopulmonary Resuscitation (CPR)/ Automated External Defibrillator (AED)
LEC   0.5 Credits   0.5 Periods
Basic overview of Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED). Covers choking procedures and the importance, guidelines, and techniques for performing CPR and utilizing an AED. Prerequisites: None

HES110 – Introduction to Global Health Issues and Disease
LEC   3 Credits   3 Periods
Introduction to global health challenges and diseases from throughout the world. Focus is on biological and social aspects of major health issues, infectious disease, nutrition and environmental health. Includes review of groups that are at increased risk of poor health and familiarity with policies and programs designed to reduce health inequalities. Prerequisites: None.

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]

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]

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 changes. Topics include development and influence of federal policies, past and present issues confronting Native Americans and how Native American individuals and communities maintain their identities as they confront social changes. Prerequisites: None. Cross-References: AIS140 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: ENG101. 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: ENG101. 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.

JOURNALISM (JRN)
JRN203 – Writing for Online Media
LEC   3 Credits   3 Periods
Writing using the modes and resources available on the Internet. Use of information and resources available on the Internet in writing, as well as writing for the Internet itself. Prerequisites: Placement into ENG101 on a District-approved writing placement test

MATHEMATICS (MAT)
MAT065 - Graphing Calculator
LEC   1 Credit   1 Period
Computations, graphing, matrices, and elementary programming using a graphing calculator. Prerequisites: None.

MAT081 – Basic Arithmetic
LEC   4 Credits   4 Periods
Primary emphasis on conceptual understanding of and solving problems involving whole numbers, integers, mathematical operations, decimals, decimal operations, fractions, percentages, angles and geometric figures. Use of systems of measure, similarity, proportionality and the Pythagorean theorem. Focus on mathematical language, connections, patterns and reasoning, and additive and multiplicative reasoning. Prerequisites: Satisfactory score on district placement exam. Course Notes: Student may receive credit for only one of the following: MAT051 and MAT052 and MAT053 and MAT054, or MAT081, or MAT082.

MAT082 - Basic Arithmetic
LEC   3 Credits   3 Periods
Primary emphasis on conceptual understanding of and solving problems involving whole numbers, integers,

mathematical operations, decimals, decimal operations, fractions, percentages, angles and geometric figures. Use of systems of measure, similarity, proportionality and the Pythagorean theorem. Focus on mathematical language, connections, patterns and reasoning, and additive and multiplicative reasoning. Prerequisites: Satisfactory score on district placement exam. Course Notes: Student may receive credit for only one of the following: (MAT051 and MAT052 and MAT053 and MAT054), or MAT081, or MAT082.

MAT090 – Introductory Algebra
LEC   5 Credits   5 Periods
Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change. Prerequisites: A grade of "C" or better or satisfactory Math Diagnostic Assessment score for (MAT051, MAT052, MAT053, and MAT054), or MAT081, or MAT082. Course Notes: Student may receive credit for only one of the following: MAT055 and MAT056 and MAT057, or MAT090, or MAT091, or MAT092.

MAT091 - Introductory Algebra
LEC   4 Credits   4 Periods
Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically,

analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change. Prerequisites: A grade of "C" or better or satisfactory Math Diagnostic Assessment score for (MAT051, MAT052, MAT053, and MAT054), or MAT081, or MAT082. Course Notes: Student may receive credit for only one of the following: MAT055 and MAT056 and MAT057, or MAT090, or MAT091, or MAT092.

MAT092 - Introductory Algebra
LEC   3 Credits   3 Periods
Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change. Prerequisites: A grade of "C" or better or satisfactory Math Diagnostic Assessment score for (MAT051, MAT052, MAT053, and MAT054), or MAT081, or MAT082. Course Notes: Student may receive credit for only one of the following: MAT055 and MAT056 and MAT057, or MAT090, or MAT091, or MAT092.

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, MAT091, MAT092, or MAT093) or successful completion of required Maricopa Modules, or satisfactory score on the 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 a satisfactory score on the District placement exam. Course Note: May receive credit for only one of the following: MAT120, MAT121, or MAT122.

MAT122 - Intermediate Algebra
LEC   3 Credits   3 Periods
Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. Prerequisites: (A grade of "B" or better in MAT090, or MAT091, or MAT092, or MAT093), or successful completion of required Maricopa Modules, or satisfactory score on the District placement exam. Course Note: May receive credit for only one of the following: MAT120, MAT121, or MAT122.

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 Notes: Students may receive credit for only one of the following: MAT140, MAT141, or MAT142. General Education Designation: Mathematics - [MA]

MAT141 - College Mathematics
LEC   4 Credits   4 Periods
Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include set theory, probability, statistics, finance, and geometry. 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
MAT1142
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

MAT150 - College Algebra/Functions
LEC   5 Credits 5 Periods
Analysis and interpretation of the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, modeling and solving real world problems. Additional topics may include matrices, combinatorics, sequences and series, and conics. Prerequisites: A grade of "C" or better in MAT120, or MAT121, or MAT122, or satisfactory score on District placement exam. Course Notes: May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187.General Education Designation: Mathematics - [MA] in combination with: MAT182. General Education Designation: Mathematics - [MA]

MAT151 - College Algebra/Functions
MAT1151
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: A grade of "C" or better in MAT120, or MAT121, or MAT122, or satisfactory score on District placement exam. Course Notes: May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187.General Education Designation: Mathematics - [MA] in combination with: MAT182. General Education

Designation: Mathematics - [MA]   Arizona Shared Unique Number SUN# MAT1151

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: A grade of "B" or better in MAT120, or MAT121, or MAT122, or satisfactory score on a placement test. Course Notes: May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187. General Education Designation: Mathematics - [MA]

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
MAT1187
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
MAT1160
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
MAT2212
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 MAT150, or MAT151, or MAT152, or MAT187 or appropriate Math placement test score. Course Notes: Students may receive credit for only one of the following: MAT212 or MAT213. 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. Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or MAT187 or equivalent, or appropriate Math placement test score. Course Notes: Students may receive credit for only one of the following: MAT212 or MAT213. General Education Designation: Mathematics - [MA]

MAT218 - Mathematical Analysis for Business
LEC   4 Credits   4 Periods
An introduction to the mathematics required for the study of business. Includes multivariable optimization, Lagrange multipliers, linear programming, linear algebra, probability, random variables, discrete and continuous distributions. Prerequisites: Grade of C or better in MAT212 or MAT213.

MAT220 - Calculus with Analytic Geometry I
 MAT2220
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 MAT212 or MAT220, or MAT221, or equivalent.

MAT230 – Calculus with Analytic Geometry II
 MAT2230
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 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]

MAT240 – 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 Notes: Students may receive credit for only one of the following: MAT240 or MAT241. Course Attributes: General Education Designation: Mathematics - [MA]

MAT241 - Calculus with Analytic Geometry III
 MAT2241
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: Student may receive credit for only one of the following: MAT240 or MAT241. General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 2241

MAT256 – Investigating Quantity: Number, Operations and Numeration Systems
LEC   4 Credits   4 Periods
Explore number, numeration systems and operations on numbers. Techniques of problem solving with an emphasis on exploring a variety of strategies. Use a variety of visualization techniques to develop a conceptual understanding of these topics.
Prerequisites: A grade of "C" or better in (MAT150 or

MAT151 or MAT152 or higher), or a grade of "C" or better in [(MAT120 or MAT121 or MAT122) and (MAT140 or MAT141 or MAT142 or higher)], or [a grade of "C" or better in (MAT140 or MAT141 or MAT142) and satisfactory score on District placement exam to permit enrollment in (MAT150 or MAT151
or MAT152 or higher)]. Course Notes: MAT256 is designed to meet requirements for prospective elementary education teachers.

MAT257 – Investigating Geometry, Probability and Statistics
LEC   4 Credits   4 Periods
Explores geometry, measurement, probability and statistics. Uses visualization, technologies, problem solving, reasoning and proof to develop a conceptual understanding of these topics. Prerequisites: MAT256 or permission of Instructor. Course Notes: MAT257 is designed to meet the requirements for prospective elementary education teachers.

MAT262 - Differential Equations
■ MAT2262
LEC   3 Credits   3 Periods
Ordinary differential equations with applications including LaPlace transforms with numerical methods. Prerequisites: Grade of "C" or better in MAT230 or MAT231 or equivalent. General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 2262

MAT276 - Modern Differential Equations
LEC   4 Credits   4 Periods
Introduces differential equations, theoretical and practical solution techniques with applications. Problem solving using MATLAB. Prerequisites: Grade of "C" or better in MAT230, or MAT231, or permission of Department or Division. 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 managementprocesses, 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 relationships. 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]

MHL204 – Hip-Hop Music and Culture
LEC   3 Credits   3 Periods
A history of Hip-Hop`s musical and artistic elements and how cultural, social, political, and economic conditions have shaped its evolution. Prerequisites: ENG101, or ENG107, or permission of Instructor.
General Education Designation: Literacy and Critical Inquiry - [L]
General Education Designation: Cultural Diversity - [C]
General Education Designation: Humanities and Fine Arts - [HU]

MHL242
LEC   3 Credits   3 Periods
In-depth study of music history from the Classical period through the Contemporary period Prerequisites: MHL241 or permission of Instructor General Education Designation: 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.

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.

MKT111 – Applied Marketing and Social Netorking
LEC   3 Credits   4 Periods
Examination of the strategic use of digital and social media marketing platforms and tools for global communication and networking, including analysis of various digital and social media platforms and tools for developing brands, creating professional networks and creating engaging content. Hands-on use of social media platforms and tools to conduct research, develop strategies for creating, integrating, and evaluating social media marketing campaigns, and development of metrics to measure effectiveness. Prerequisites: MKT110.

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.

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.

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 Period
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.
The study of chromatic harmony and melody, modulation techniques and expanded chords. The analysis of formal structure. Prerequisites: MTC155 Corequisites: MTC206 Arizona Shared Unique Number SUN#: MUS 2222

MTC205 – Music Theory III
LEC   3 Credits   3 Periods
The study of chromatic harmony and melody, modulation techniques and expanded chords. The analysis of formal structure. Prerequisites: MTC155 Corequisites: MTC206 Arizona Shared Unique Number SUN#: MUS 2222

MTC206
LEC + LAB 1 Credit   2 Periods
A development of listening and performing skills, including an introduction of chromatic harmonic.
Prerequisites: None. Corequisites: MTC205 Arizona Shared Unique Number SUN#: MUS 2222

MTC255 – Music Theory IV
LEC   3 Credits   3 Periods
A continuation of Music Theory III, including 20th century theories and techniques Prerequisites: MTC205

Corequisites: MTC256 Arizona Shared Unique Number SUN#: MUS 2223

MTC256 – Aural Perception IV
LEC   1 Credit   2 Periods
A continuation of Aural Perception III, including extended chords. Prerequisites: None. Corequisites: MTC255 Arizona Shared Unique Number SUN#: MUS 2223

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.

MUC112 – Digital Audio Workstation II (DAW II)
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: MUC111, and (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.

MUC297AB - 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.

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.

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 the 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 performances in class of solo vocal literature. Prerequisites: None.

MUP134 - Class Voice II
LEC + LAB 2 Credits   3 Periods
Continuation of Class Voice I including the elements of stage presence and diction. Prerequisites: MUP 133 or permission of instructor.

MUP150 - Community Chorus
LEC + LAB 1 Credit   3 Periods
A mixed chorus with emphasis on college/community participation and preparation of a variety of choral literature for public performance. Auditions may be required. May be repeated for Credit. Prerequisites: None.

MUP152A A - Private Instruction: Voice
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. Prerequisites: MUP102A A. Course Notes: MUP152A A may be repeated for credit.

MUP152AD - Private Instruction: Piano
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. Prerequisites: MUP102AD. Course Notes: MUP152AD may be repeated for credit.

MUP153 - Concert Choir
LEC + LAB 2 Credits   5 Periods
A mixed choir designed to emphasize choral techniques and performance of all styles of choral literature. Public performances are scheduled each semester. Prerequisites: None. Course Notes: Auditions may be required. MUP153 may be repeated for credit.

MUP159 - Community Orchestra
LEC + LAB 1 Credit   3 Periods
Emphasis on college/community participation and the preparation of orchestral literature for public

performance. Auditions may be required. May be repeated for credit. Prerequisites: None.

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 Credits 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.

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.

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.

NAV115 – 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.

PED101DF
LEC + LAB 1 Credit   2 Periods
Basic self-defense skills, ground-fighting skills, and stand-up fighting capabilities. Modified for all skill levels. Practice is based on real-life experiences and endurance enhanced drills. Develops self confidence. Prerequisites: None Course Notes: PED101DF may be repeated for credit Course Attributes: COMMON COMPETENCY COURSE

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.

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.

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. Prior experience recommended. 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.

PED1O2ST – 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.

PED102VB
LEC + LAB 1 Credit   2 Periods
Improve upon basic skills and game strategy of volleyball at the intermediate level. Class emphasis on competition and drills. Prerequisites: None. Prior experience recommended. Course Notes: PED102VB may be repeated for credit. COMMON COMPETENCY COURSE

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 Note: 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.

PED103BC - Boot Camp
LEC + LAB 0.5 Credits   1 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 Course Note: PED103BC may be repeated for credit.

PED103GO - Golf
LEC + LAB 0.50 Credits   1 Period
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: PED103GO may be repeated for credit.

PED115 - Lifetime Fitness
LEC + LAB 2 Credits   4 Periods
Increase personal fitness, strength, and vitality. Current principles of cardiovascular exercise, weight training, flexibility, and balance exercises applicable

to lifetime fitness goals. Personalized fitness plans developed and implemented with support of highly trained fitness professionals. Techniques to make sessions more effective and enjoyable. Prerequisites: None. Course Note: PED115 may be repeated for a total of (8) credit hours.

PED120AF - Special Emphasis Activities: Weight Training
LEC + LAB 2 Credits   4 Periods
Intensive experience in weight training. Prerequisites: None. Course Note: PED120AF may be repeated for a total of 8 credits.

PED124 – Strength and Conditioning for Sport Performance: Basic
LEC+LAB 2 Credits   4 Periods
Introduction to the principles and training techniques of strength and conditioning for sport performance. Emphasis is placed on beginning 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.

PED125 – Strength and Conditioning for Sport Performance: Intermediate
LEC+LAB 2 Credits   4 Periods
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: PED124.   Course Notes: PED125 may be repeated for a total of eight (8) credit hours.

PED201BA – Baseball - Advanced
LEC + LAB 1 Credit   2 Periods
To improve upon intermediate skills and game strategy of baseball at the advanced level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. Course Notes: PED201BA may be repeated for credit. Course Attributes: COMMON COMPETENCY COURSE

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.

PED201SB – Softball - Advanced
LEC + LAB 1 Credit   2 Periods
To improve upon intermediate skills and game strategy of soccer at the advanced level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. Course Notes: PED201SO may be repeated for credit. Course Attributes: COMMON COMPETENCY COURSE

PED201SO – Soccer - Advanced
LEC + LAB 1 Credit   2 Periods
To improve upon intermediate skills and game strategy of soccer at the advanced level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. Course Notes: PED201SO may be repeated for credit. Course Attributes: COMMON COMPETENCY COURSE

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: Prior experience at competitive level recommended. Course Notes: PED201WT may be repeated for credit.

PED202BA – Baseball - Elite
LEC + LAB 1 Credit   2 Periods
Improve upon advanced skills and game strategy of baseball at the elite level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. Course Notes: PED202BA may be repeated for credit. Course Attributes: COMMON COMPETENCY COURSE

PED202GO – Golf - Elite
LEC + LAB 1 Credit   2 Periods
Improve upon advanced skills and game strategy of golf at the elite level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. Course Notes: PED202GO may be repeated for credit. Course Attributes: COMMON COMPETENCY COURSE

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.

PED202VB – Volleyball - Elite
LEC + LAB 1 Credit   2 Periods
Improve upon advanced skills and game strategy of volleyball at the elite level. Class emphasis on competition and drills. Prerequisites: None. Prior experience at competitive level recommended. Course Notes: PED202VB may be repeated for credit. Course Attributes: COMMON COMPETENCY COURSE

PHILOSOPHY (PHI)
PHI101 - Introduction to Philosophy
■ PHI1101
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
■ PHI1103
LEC   3 Credits   3 Periods
Informal logic, logical fallacies, elementary symbolic logic, analysis of argument forms, and construction o f proofs for validity. Prerequisites: ENG101 or ENG107 or equivalent. General Education Designation: Humanities and Fine Arts – [HU]; Literacy and Critical Inquiry - [L]

PHI105 - Introduction to Ethics
■ PHI1105
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]

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]

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 PHY1111
LEC   4 Credits   3 Periods
LAB   0 Credit   3 Periods
Includes motion, energy, and properties of matter. Prerequisites: MAT182, or MAT187, 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 pre-professional and suggested for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111A A. General Education Designation: Natural Sciences (Quantitative) - [SQ]

PHY112 - General Physics II PHY1112
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]

PHY 115 – University Physics I
LEC   5 Credits   4 Periods
LAB   0 Credit   3 Periods
General physics course using calculus to develop the principles of mechanics and thermodynamics. Recommended for majors in the sciences and mathematics. Required for Engineering majors. Prerequsites: MAT220 or MAT221 or permission of Department or Division Corequisites: MAT230 or MAT231 One year High School physics or PHY111 and PHY112 is strongly recommended.

PHY116 - University Physics II
LEC   5 Credits   4 Periods

LAB   0 Credit   3 Periods
Principles of electricity, magnetism, waves, and optics. Required for Engineering majors. Prerequisites: PHY115 and (MAT230 or MAT231) Corequisites: MAT241

PHY121 - University Physics I: Mechanics
PHY1121
LEC   4 Credits   3 Periods
LAB   0 Credit   3 Periods
Kinematics, Newton's laws, work, energy, momentum, conservation laws, dynamics of particles, solids, fluids, mechanical waves, and sound. Prerequisites: MAT220, or MAT221, or permission of Department or Division. One year of High School physics or PHY111 and PHY112 suggested but not required. General Education Designation: Natural Sciences (Quantitative) - [SQ]

PHY131 - University Physics II: Electricity and Magnetism PHY1131
LEC   4 Credits   3 Periods
LAB   0 Credit   3 Periods
Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction.   AC circuits, displacement current, and electromagnetic waves. Prerequisites: MAT230, or MAT231, or permission of Department or Division, and PHY121. Co requisites: MAT241 or permission of Department or Division. General Education Designation: Natural Sciences (Quantitative) - [SQ]

PHLEBOTOMY (PLB)
PLB109 – Phlebotomy: Basic Skills
LEC + LAB 2 Credits   4 Periods
Theory and practice of basic phlebotomy including laboratory test codes, equipment, and procedures. Prerequisites: (Acceptance into the Medical Assisting or Phlebotomy program), (a grade of "C" or better in HCC130 and HCC145AA), and permission of Program Director.

PLB111 – Specimen Processing and Advanced Techniques in Phlebotomy Procedures
LEC + LAB 2 Credits   4 Periods
Theory and practice of advanced techniques in phlebotomy and specimen processing including laboratory test codes, equipment, and procedures. Prerequisites: PLB109 and permission of Program Director.

PLB122 – Practicum: Phlebotomy and Specimen Processing
LAB   3 Credits   12 Periods

Application of phlebotomy and specimen processing techniques in a clinical laboratory setting or health care environment.
Prerequisites: PLB109 or permission of Program Director.
Prerequisites or Corequisites: PLB111 or permission of Program Director.

POLITICAL SCIENCE (POS)
POS110 - American National Government
POS1110
LEC   3 Credits   3 Periods
Study of the historical backgrounds, governing principles, and institutions, of the national government of the United States. Prerequisites: None. (POS110 meets U.S. Constitution Requirements for Teacher Certification.) General Education Designation: Social and Behavioral Sciences - [SB]

POS130 – State and Local Government
LEC   3 Credits   3 Periods
Survey of state and local government in the United States. Special attention on Arizona State government.
Prerequisites: None General Education Designation: Social and Behavioral Sciences - [SB]
Arizona Shared Unique Number SUN#: POS 1130

POS230
LEC + LAB 3 Credits   3 Periods
Exploration of democratic citizenship in a multicultural society. Focus on the role of the activist in public policy service, community organizing, and social change strategies such as communication, social movement theory perspectives, and how leaders maintain movement momentum. Interpretation of the vision, philosophy, and work of Cesar E. Chavez; and accomplishments by citizens (individually and collectively) in social change and opposition. Special emphasis on community engagement participation. Prerequisites: None Course Notes: POS230 requires a minimum of 16 hours of civic engagement participation with community partners

PSYCHOLOGY (PSY)
PSY101 - Introduction to Psychology
PSY1101
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]

PSY123 - Psychology of Parenting
LEC   3 Credits   3 Periods
The demonstration and application of psychological principles to the development and guidance of children and adolescents. Prerequisites: None.

PSY132 - Psychology and Culture
LEC   3 Credits   3 Periods
Presents current knowledge about human diversity in behavior and culture using examples from a variety of contexts within western and global societies. Highlights topics in cross-cultural psychology, such as intergroup relations, diverse cognitive styles, ethnocentrism, gender, personality, emotion, language, communication, work and health. The role of enculturation throughout the lifespan will be explored to increase awareness of how behavioral and cognitive principles affect interactions in a multicultural world. Prerequisites: None. General Education Designation: Cultur5al Diversity – [C]; Global Awareness [G]; Social and Behavioral Sciences - [SB]

PSY156 - Understanding Death and Dying
LEC   3 Credits   3 Periods
Designed to give the student an understanding of the research and theories of death, dying and the bereavement process. Prerequisites: None.

PSY230 - Introduction to Statistics
LEC   3 Credits   3 Periods
An introduction to basic concepts in descriptive and inferential statistics, with emphasis upon application to psychology. Consideration given to the methods of data collection, sampling techniques, graphing of data, and the statistical evaluation of data collected through experimentation. Required of psychology majors.
Prerequisites: PSY101 with a grade of "C" or better and MAT092 or equivalent, or permission of instructor.

PSY235 - Psychology of Gender
LEC   3 Credits   3 Periods
To assess historical and psychological perspectives on women and men and to evaluate contemporary viewpoints regarding the psychology of women and men. Prerequisites: PSY101 with a grade of C or better or permission of Instructor. General Education Designation: Cultural Diversity – [C]; Social and Behavioral Sciences - [SB]

PSY240 - Developmental Psychology
LEC   3 Credits   3 Periods
Human development from conception through
adulthood. Includes: physical, cognitive, emotional
and social capacities that develop at various ages.
Recommended for students majoring in nursing,
education, pre-med, and psychology. Prerequisites: PSY
101 with a grade of "C" or better or permission of the
instructor. 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]

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.
Examination 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 on-going study of words. Emphasis on both learning and using more advanced vocabulary effectively. Prerequisites: RDG020 with grade of C or better, or permission of instructor. Course Note: Recommended for reading students at ESL Levels III and IV.

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. Includesdevelopmentofadvancedvocabulary, 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 phonic analysis, word recognition, structural analysis, use of context clues, and use of dictionary, reinforced through practical application. Development of vocabulary required for success in content area courses. Emphasis on literal comprehension and development of inferential interpretation. Prerequisites: Appropriate reading placement test score, or grade of "C" or better in 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-today 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 loyalty. Prerequisites: None.

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
Introduction of principles, methods, and techniques for communicating with deaf people who sign. Development of expressive and receptive sign skills, manual alphabet, numbers, and sign vocabulary. Overview of syntax, grammar, and culture related to American Sign Language (A.S.L.). Prerequisites: None. SLG103 suggested as a co requisite but not required.

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
🟧 SOC1101
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
🟧 SOC2215
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 amount 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. General Education Designation: Social and Behavioral Sciences - [SB]

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]

SOC241 – Race and 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: Cultural Diversity - [C]   General Education Designation: Social-Behavioral Sciences [SB]   Arizona Shared Unique Number SUN# 2215

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)
SPA101 - Elementary Spanish I
🟧 SPA1101
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
🔶 SPA1102
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 SPA101 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.

SPA201 - Intermediate Spanish I
🔶 SPA2201
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
🔶 SPA2202
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

STO250AA – Benefiting from the Storytelling Festival
Experience
LEC   1 Credit   1 Period
Observation of master storytellers in performance.
Structured observation, inquiry, and reflection in the
context of a major national storytelling festival.
Prerequisites: None Course Notes: STO250AA may be taken
up to 3 times for different festival experiences.

STO282A A-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.

STO298AA - AC - Special Projects
LAB   2 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 m Prerequisites: Permission of Program Director or instructor.

SUSTAINABILITY/NATURAL SCIENCES (SUS)
SUS110 Sustainable World
LEC   3 Credits   3 Periods
Introduction to the field of sustainability and exploration of the interaction between human and natural global systems. Framework for analyzing and investigating the global challenges such as land use change, competition for water and other natural resources, and renewable energy concerns and crises. Prerequisites: None.

SOCIAL WORK (SWU)
SWU102 - Introduction to Social Work
LEC   3 Credits   3 Periods
An introduction to the fields within the area of social work through a study of the disciplines of social case work, social group work, and community organization. Opportunities to experience the various techniques of practice within each discipline. Required for students enrolled in the associate degree program of the social work curriculum. Prerequisites: Eligibility for ENG101 and CRE101. General Education Designation: Historical Awareness – [H]; Social and Behavioral Sciences - [SB]

SWU171 - Introduction to Social Welfare
LEC   3 Credits   3 Periods
Analysis of contemporary social welfare services and professional social work. Prerequisites: None. General Education Designation: Historical Awareness – [H]; Social and Behavioral Sciences - [SB]

SWU258 – Victimology and Crisis Management
LEC   3 Credits   3 Periods
Victimology, the criminal justice system, techniques of crisis intervention, and the importance of a multicultural and global perspective. Includes sexual assault, family violence, post-traumatic stress disorder, the role of substance abuse, effective coping skills, appropriate community resources

and the responsiveness of the justice system.
Prerequisites: None General Education Designation:
Cultural Diversity - [C]
General Education Designation: Social and Behavioral
Sciences - [SB]

SWU292 – Effective Helping in a Diverse World
LEC   3 Credits   3 Periods
Introduction to professional helper communication skills
with respect to cross-cultural practice and diversity
issues, in a social work setting. Prerequisites: None.
(SOC101 and SWU102) or SWU171 suggested but not
required.

THEATER (THE)
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
THE2220
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 Readings**
LEC + LAB 1 Credits   2 Periods
Practice in the techniques of auditioning for stage and
screen. Identifies and illustrates techniques of the
cold reading audition. Prerequisites: None.

THF205 – Introduction to Cinema
LEC   3 Credits   4 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]

THF210 – Contemporary Cinema
LEC   3 Credits   4 Periods
A study of contemporary films, directors and critics
with emphasis on evaluating film as an art form.
Prerequisites: None. General Education Designation:
Humanities and Fine Arts - [HU]

THF215 – Advanced Makeup for Stage and Screen
LEC + LAB 3 Credits   4 Periods

Advanced character analysis and makeup design for stage and screen. Technical application of makeup for stage and screen. Prerequisites: THF115.

THEATER PERFORMANCE/PRODUCTION (THP)

THP112 - Acting I
LEC + LAB 3 Credits   4 Periods
Fundamental techniques and terminology of acting through physical and vocal expression, improvisation, and monologue and scene work. Emphasis on characterization. Prerequisites: None.

THP201AA - Theatre Production I
LAB   1 Credits   2 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.

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.

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.

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: None

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.

THP282 – Production and Acting II
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: THP281 or permission of Department or Division

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-References: HUM209

YAQUI INDIAN HISTORY AND CULTURE (YAQ)
YAQ100 - Yaqui Indian History and Culture
LEC   3 Credits   3 Periods
Surveys Yaqui Indian history and culture from pre-contact to the present. Explores themes of resistance, dispersion, survival, tradition, family, community, belief systems, and identity. Places Yaqui history within the context of Arizona, American Indian, Mexican, and Mexican-American History. Examines historical writing and analysis, life histories, poetry, language, and emphasis on Yaqui experiences in 20th century Arizona. Prerequisites: None. General Education Designation: Cultural Diversity – [C]; Social and Behavioral Sciences - [SB]

YAQ110 - Yaqui Language & Culture
LEC   3 Credits   3 Periods
Introduction to the Yaqui language and overview of the traditional culture as a background for language use. Instruction in the grammar and writing system to assist student in speaking, reading, and writing Yaqui. Prerequisites: None

Personnel Information

FACULTY

Stephanie Allen - Librarian
M.L.S., University of Texas at Austin

Jennifer Avila, Reading
A.A.-Lakeland Community College; B.A.-Lake Erie College;
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Paul Bosch, Biology
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David Bannenberg, Manager Building Operations

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Technical University

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