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All courses listed in this catalog are not offered every semester. Check in the Class Schedule for current course offerings. On the web, go to www.phoenixcollege.edu and click on Class Schedule.
AAA – Advancing Academic Achievement

AAA/CPD 150
Strategies for College Success
3 credits 3 periods lecture
Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning. **Prerequisites:** None.

AAA/CPD150AA
College Orientation/Personal Growth
1 credit 1 period lecture
Emphasis on increasing student success through college orientation, identification of learning style and the use of time management, goal-setting, and interpersonal communication strategies. **Prerequisites:** None.

AAA/CPD150AB
Study Skills Development
1 credit 1 period lecture
Emphasis on increasing student success through the use of study strategies including materials organization, note-taking, reading, test-taking, memory and critical and creative thinking. **Prerequisites:** None.

AAA/CPD150AC
Educational & Career Planning
1 credit 1 period lecture
Emphasis on increasing student success through educational and career planning. **Prerequisites:** None.

ACC – Accounting

ACC111
Accounting Principles I
3 credits 3 periods lecture
Fundamental theory of accounting principles and procedures. **Prerequisites:** None.

ACC115
Computerized Accounting
2 credits 3 periods lecture + lab
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
2 credits 3 periods lecture + lab
Preparation of and practical experience in preparing returns. **Prerequisites:** None.

ACC219
Intermediate Accounting I
3 credits 3 periods lecture
Theory and practice applicable to determination of asset values, liabilities, and related problems of income determination. **Prerequisites:** (ACC212 or ACC240) with a grade of "C" or better, or permission of department/division.

ACC220
Intermediate Accounting II
3 credits 3 periods lecture
Continuation of the theory and practice applicable to liabilities and owner's equity; special problems and financial reporting. **Prerequisites:** ACC219 with a grade of "C" or better, or permission of department/division.

ACC221
Tax Accounting
3 credits 3 periods lecture
Preparation of and accounting procedures for individuals; introduction to partnerships and corporate tax structures. **Prerequisites:** ACC111 or ACC211 or permission of department/division.

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

ACC240
Uses of Accounting Information II
3 credits 3 periods lecture
Introduction to the uses of accounting information for internal and external purposes with emphasis on analysis for use by management. **Prerequisites:** ACC230.

ACC270AA-AC
Accounting Internship
1-3 credits 1-3 periods lab
Accounting work experience in a business or industry. Eighty hours of designated work per credit per semester. Maximum of 3 credits allowed. **Prerequisites:** Departmental approval.

ACC298AA-AC
Special Projects
1-3 credits 1-3 periods lab
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment 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.

ADA – Advertising Arts

ADA113
Air Brush Techniques
3 credits 5 periods lecture + lab
Use of the artist's air brush in illustration, photo retouching, vignetting, silhouetting, emphasizing. Photo retouching for reproduction purposes and technical illustration. **Prerequisites:** None.

ADA114
Graphics Printing Processes
3 credits 4 periods lecture + lab
Printing methods, skill development in planning and layout, composition methods, proofing and correction, color process, image carrier preparation. **Prerequisites:** None.

For additional information on PC program competencies, visit:
http://www.dist.maricopa.edu/academic/curric/progpc.php

For additional information on MCCCD course competencies, visit:
http://www.dist.maricopa.edu/academic/curric/cs.php
AES – Aerospace Studies

AES101
The Air Force Today I
2 credits 2 periods lecture & lab
Introduction to U.S. Air Force and AFROTC. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership and professionalism.
Prerequisites: None.

AES103
Air Force Today II
2 credits 2 periods lecture & lab
Introduction to U.S. Air Force and AFROTC. Topics include: the Air Force mission and organization, customs and courtesies, officer opportunities, officership and professionalism.
Prerequisites: AES101 or ASU Department of Aerospace Studies approval.

AES201
Evolution of USAF Air & Space Power I
2 credits 2 periods lecture & lab
Further preparation of AFROTC candidate. Topics include: Air Force heritage and leaders, communication skills, ethics, leadership, quality Air Force, and values.
Prerequisites: AES103 or ASU Department of Aerospace Studies approval.

AES203
Evolution/USA Air & Space Power II
2 credits 2 periods lecture & lab
Topics include: The Air Force mission and organization, customs and courtesies, officer opportunities, officership, and professionalism.
Prerequisites: AES201 or ASU Department of Aerospace Studies approval.

AFR – African American Studies

AFR110
Introduction to African-American Studies
3 credits 3 periods lecture
Introduction to the study of the African-American experience. Interdisciplinary approach includes historical underpinnings; population and cultural characteristics; social, economic, and political issues; and implications for the future.
Prerequisites: None.

AFR203
African-American History: The Slavery Experience
3 credits 3 periods lecture
History and cultural heritage of African-Americans, including arrival in the Americas, chattel slavery experience, emancipation, and participation in the American Civil War. Presented from an Afro-centric perspective.
Prerequisites: AFR110 or permission of instructor.

AFR204
African-American History: Reconstruction to the Present
3 credits 3 periods lecture
History and cultural heritage of African-Americans from the Reconstruction period to the present, including the Depression, the Harlem Renaissance, the Civil Rights Movement, and affirmative action. Presented from an Afro-centric perspective.
Prerequisites: AFR203, or permission of instructor.

AIS – American Indian Studies

AIS101
Survey of American Indian Issues
3 credits 3 periods lecture
Introduction to critical issues related to Native Americans. Examines political, economic, and social issues. Focuses on contemporary issues and factors influencing American Indian communities.
Prerequisites: None.
AIS/SOC160
American Indian Law
3 credits 3 periods lecture
Analyzes the legal system of the United States Government as it applies to American Indian Nations. Examines how United States legal institutions have impacted Indian sovereignty. Units of analysis include the development of Indian law, United States Supreme Court decisions, Congressional Acts, treaty rights and the development of tribal governments. Focuses on legal institutions that have abridged the property rights of Indian Nations. **Prerequisites:** None.

AIS/HIS170
American Indian History of the Southwest
3 credits 3 periods lecture
Covers history of Indian peoples in the southwestern United States from pre-Columbian era to the present. Includes historical events, the development and implementation of Spanish-Mexican and United States’ policies and their impact on Indian peoples in these areas, and current issues of importance to Indian peoples. **Prerequisites:** None.

AIS/MGT203
Fundamentals of Economic Development for Indigenous Nations
3 credits 3 periods lecture
Provides a practical understanding of the economic development process. Examines ways in which development can be initiated and financed. Focuses on how budget systems can be used as management tools. Reviews fundamentals of proposal writing and budget management for grants. **Prerequisites:** ACC230 or permission of instructor.

AIS213 /REL203
American Indian Religions
3 credits 3 periods lecture
Tribal traditions of the peoples native to North American, and pan-Indian religions in the twentieth century. **Prerequisites:** ENG101 or ENG107 or equivalent.

AIS/ENH/WST261
Native Women’s Literature: The Americas
3 credits 3 periods lecture
Explores contemporary native women’s (indigenous to the Americas) literature. Selected literature (oral tradition, poetry, fiction, nonfiction, and drama) focuses on themes relevant to native women. Examines the trends and movements within American Indian and women’s literary history. **Prerequisites:** ENG101.

AJS107
Patrol Procedures
3 credits 3 periods lecture
Specialized areas of the patrol function, including responding to crowds, riots, bomb threats, intoxication, hazardous materials, fires, and domestic disputes. Partially fulfills Arizona POST requirements for proficiency skills academy attendance. **Prerequisites:** None.

AJS109
Substantive Criminal Law
3 credits 3 periods lecture
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 definitions of crime, common defenses utilized. Includes specific offenses and the essential elements of each offense. Required in AJS curriculum. **Prerequisites:** None.

AJS110
Law and Legal Review I
3 credits 3 periods lecture
In-depth study of the Arizona laws governing arrest by peace officers, as well as an intensive study of the Arizona substantive criminal law code (ARS Title 13). Focuses on specific sections of ARS Title 4 and ARS Title 8, as they apply to peace officers in Arizona. Partially fulfills the Arizona POST Board requirements for Proficiency Skills Academy attendance. **Prerequisites:** None.

AJS123
Ethics & the Administration of Justice
3 credits 3 periods lecture
Introduces and explores ethical issues and the justice system. Focuses on ethics and the law, the police, courts and corrections. Reviews ethical theory, concepts and practices as they relate to administration of justice. Encourages critical thinking and value decision making in criminal justice system situations. **Prerequisites:** None.
AJS201 Rules of Evidence
3 credits 3 periods lecture
A practical insight into the rules of evidence to include how to recognize evidence: the general rules governing admissibility of evidence; the "hearsay" rule and its exceptions; the use of documentary evidence, written memoranda, photographs, and recordings; corpus delicti; opinion evidence, circumstantial evidence, evidential privileges. Required in AJS curriculum. Prerequisites: None.

AJS205 Criminal Justice Report Writing
3 credits 3 periods lecture
Characteristics of reports and field notes, and the importance and uses of each. Form, style, and procedures for writing various reports, including elements of composition, required substance, proper and improper conclusions, and descriptions of persons and property. Prerequisites: None.

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

AJS212 Juvenile Justice Procedures
3 credits 3 periods lecture
Examines the history and development of juvenile justice theories, procedures, and institutions. Prerequisites: None.

AJS213 Evidence Technology/Fingerprints
3 credits 3 periods lecture
Fingerprint identification, interpretation, and classification. The fundamentals of fingerprinting and the problems in developing latent prints, preservation of evidence and the chain of evidence. Prerequisites: None.

AJS214 Evidence Technology/Photography
3 credits 3 periods lecture
The use of photography and other aids in identification and preservation of evidence such as fingerprints, footprints and impressions. Techniques in crime scene and traffic accident photography. Prerequisites: None.

AJS215 Criminalistics: Physical Evidence
3 credits 3 periods lecture
The scientific analysis and examination of physical evidence with emphasis on scientific investigation, recognition, collection, and preservation of evidence. Discussion topics include fingerprints, shoe prints, tool marks, firearms identification, paint chips and arson. Prerequisites: None.

AJS216 Criminalistics: Biological Evidence
3 credits 3 periods lecture
The scientific analysis and examination of biological evidence with emphasis on collection and preservation of evidence. Topics discussed include blood, drugs, blood alcohol, hairs and fibers, and topics of special interest in criminalistics. Prerequisites: None.

AJS225 Criminology
3 credits 3 periods lecture
Study of deviance, society's role in defining behavior; theories of criminality and the economic, social, and psychological impact of crime; relationships between statistics and crime trends. Examines crime victimization and the various types of crimes and categories of offenders. Required in the AJS curriculum. Prerequisites: None.

AJS230 The Police Function
3 credits 3 periods lecture
Theories of procedures and methods of operations of public police with emphasis on discretionary powers available to the working police officer. Career opportunities and current trends in law enforcement presented. Prerequisites: None.
AJS240
The Correction Function
3 credits 3 periods lecture
Examines the history and development of correctional theories and institutions. Prerequisites: None.

AJS241
Police Photography
3 credits 3 periods lecture
Emphasis on proper procedure for photographing crime scenes, accident scenes, and laboratory specimens. Discussion of photographic techniques, equipment, lighting techniques, aerial photography, video and motion pictures, macro and micro photography, filters, and preparation for court presentation using selected simulations. Prerequisites: None.

AJS260
Procedural Criminal Law
3 credits 3 periods lecture
Concerned with the understanding of procedural criminal law. Examines the rationale underlying major court holdings, the procedural requirements that stem from these holdings, and their effect on the daily operations of the criminal justice system. Prerequisites: None.

AJS270
Community Relations
3 credits 3 periods lecture
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.

AJS271
Special Populations I
1 credit 1 period lecture
Recognition of non-psychotic and psychotic behaviors including personality disorders, substance abuse, and suicidal ideas. Recommended ways of dealing with these people and identification of appropriate community agencies that can provide assistance. Prerequisites: None.

AJS273
Methods of Crisis Intervention
1 credit 1 period lecture
Use of appropriate conflict resolution techniques by police and correctional officers, including use of assertive communication, force, safety procedures, and referrals. Prerequisites: None.

AJS275
Criminal Investigation I
3 credits 3 periods lecture
Introduction to the theory of criminal investigation. Examines crime scene procedures, case preparation, interviewing, and basic investigative techniques. Prerequisites: None.

AJS276
Criminal Investigation II
3 credits 3 periods lecture
Focuses on investigating specific offenses, methods for identifying, collecting and preserving evidence. Establishing elements of crimes and connecting suspects to the crimes. Prerequisites: AJS275.

AJS278
Alcohol Abuse Seminar
1 credit 1 period lecture
Physiological and psychological effects of alcohol and symptoms of alcohol abuse. Emphasis on the detection and treatment of the alcoholic. Prerequisites: None.

AJS289
Family Violence
1 credit 1 period lecture
Family violence issues as they relate to the criminal justice response. Prerequisites: None.

AJS290
Victim Assistance
1 credit 1 period lecture
An overview of victim issues emphasizing strategies used to reduce the trauma associated with crime. Includes description of counseling methods, referral procedures, intervention techniques, and community resources. Prerequisites: None.

ARB – Arabic

ARB101
Elementary Arabic I
4 credits 5 periods lecture + lab
Introduction to the basic alphabet, grammar, pronunciation and vocabulary of the Arabic language. Listening, speaking, reading and writing skills. Prerequisites: None.

ARH – Art Humanities

ARH100
Introduction to Art
3 credits 3 periods lecture
Understanding and enjoyment of art through study of painting, sculpture, architecture, design, photography, and decorative arts. Emphasis on contemporary topics and cultural diversity in the arts. Prerequisites: None.
ARH101
Prehistoric Through Gothic Art
3 credits 3 periods lecture
History of art from prehistoric through medieval period. Prerequisites: None.

ARH102
Renaissance Through Contemporary Art
3 credits 3 periods lecture
History of art from around the world from the Renaissance through contemporary period. Prerequisites: None.

ARH109
History of American Art
3 credits 3 periods lecture
Development and variety of American art. Presentation of architecture, sculpture, painting and decorative objects. Prerequisites: None.

ARH112
History of Modern Art
3 credits 3 periods lecture
Development and significant aspects of modern art, including comparisons of relationships in expressionism, abstractions, fantasy, and art since mid-century. Prerequisites: None.

ARH115
History of Photography
3 credits 3 periods lecture
Survey of history of photography from beginning to present. Emphasizes medium's impact upon society and other visual arts. Technical developments, aesthetic concerns, and individual photographers studied. Prerequisites: None.

ARH118
Introduction to Chinese Art
3 credits 3 periods lecture + lab
Explores Chinese philosophy, symbolism, history and religions that underlie the choice of subject matter and life forms in Chinese art. Uses Chinese bamboo brush, ink and rice paper to study Chinese calligraphy and traditional subjects for painting. Prerequisites: None.

ARH145
History of American Indian Art
3 credits 3 periods lecture
Survey of American Indian Art from precontact to present. Reviews the impact of these art forms on contemporary American society, other world societies and on the visual arts. Explores characteristics, cultural influences and concerns represented in various art forms past and present. Features field trips to galleries and collections. Prerequisites: None.

ARH201
Art of Asia
3 credits 3 periods lecture
Introduction to the origins and historic development of art in Asia, with emphasis on China, Japan, and India. Prerequisites: None.

ARH203
Art of Ancient Egypt
3 credits 3 periods lecture
The art and culture of ancient Egypt from prehistoric through the Greco-Roman period. Prerequisites: None.

ARH216
Pre-Columbian Art History
3 credits 3 periods lecture
Art of the Americas prior to European contact, focusing on Mesoamerica and the Central Andean region and their respective adjoining areas, with some attention to the U.S. Southwest and Eastern Woodlands Mound Building cultures. Prerequisites: None.

ARH217
Mexican Art History
3 credits 3 periods lecture
Art of Mexico and related cultures, from the prehistoric to the contemporary period. Prerequisites: None.

ART100
Introduction to Computer Graphic Art
1 credit 2 periods lecture + lab
Conceptualization, visualization, and production of art using the computer. Prerequisites: None.

ART111
Drawing I
3 credits 6 periods lecture + lab
Fundamental principles of drawing. Emphasis on composition and facility in objective and expressive representation, using variety of drawing media. Prerequisites: None.

ART/ADA112
Two-Dimensional Design
3 credits 6 periods lecture + lab
Study of fundamental elements and principles of two-dimensional design. Prerequisites: None.

ART113
Color
3 credits 6 periods lecture + lab
Investigation seeking visual solutions to a variety of problems concerning color in two and three dimensions and modes of color appearances, including light and effects in design and theory of design. Prerequisites: ART112.

ART/ADA115
Three-Dimensional Design
3 credits 6 periods lecture + lab
Fundamental principles of three-dimensional design. Prerequisites: ART112.

ART116
Life Drawing I
3 credits 6 periods lecture + lab
Use of form, structure and anatomy of draped and undraped human figure to develop basic principles of sound craftsmanship. Prerequisites: None.

ART117
Life Drawing II
3 credits 6 periods lecture + lab
Further study of form, structure, and anatomy of the draped and undraped human figure with emphasis on composition. Prerequisites: ART116.

ART122
Drawing and Composition II
3 credits 6 periods lecture + lab
Emphasis on composition and exploration of drawing media. Prerequisites: ART111.

ART151
Sculpture I
3 credits 6 periods lecture + lab
Exploration of sculptural form and expression in clay, plaster, stone, wood and metal. Prerequisites or Corequisites: ART115 or permission of instructor.
ART152
Sculpture II
3 credits 6 periods lecture + lab
Continuation of ART151 with emphasis on control of sculptural media. Prerequisites: ART151.

ART161
Ceramics I
3 credits 6 periods lecture + lab
Introduction to ceramic materials and techniques of hand construction, decorating, glazing and throwing on potters’ wheel. Prerequisites: None.

ART162
Ceramics II
3 credits 6 periods lecture + lab
Major emphasis on wheel throwing, glaze making and decorating techniques. Prerequisites: ART161.

ART165
Watercolor Painting I
3 credits 6 periods lecture + lab
Transparent and Gouache watercolor painting. Prerequisites: ART111 and ART112 or permission of instructor.

ART166
Watercolor Painting II
3 credits 6 periods lecture + lab
Painting in water soluble media. Emphasis on individual techniques and design. Prerequisites: ART165.

ART167
Painting I
3 credits 6 periods lecture + lab
Exploration of technical and expressive possibilities of various painting media in easel painting. Prerequisites: ART111 and ART112 or permission of instructor.

ART168
Painting II
3 credits 6 periods lecture + lab
Continued refinement of painting skills and investigation of new possibilities in painting. Prerequisites: ART167 or permission of instructor.

ART/ADA170
Three-Dimensional Computer Design
3 credits 6 periods lecture + lab
Artistic manipulation of computer images. Emphasis on color and three-dimensional design in production of these images. Existing software used to generate three-dimensional art. Prerequisites: ART100, ART169, or permission of instructor.

ART/ADA173
Computer Art
3 credits 6 periods lecture + lab
Introduction to the multiple elements of paint software programs using the microcomputer. Basic foundation in the use of computer techniques including color paint programs for the production of computer images. Use of electronic input and output devices. Prerequisites: ART100, or permission of instructor.

ART/ADA175
Electronic Publishing Design I
3 credits 6 periods lecture + lab
Introduction to the multiple elements of commercial publishing using the microcomputer. Basic foundation in the use of electronic page layout techniques. Emphasis on publication design layout and concepts. Prerequisites or Corequisites: ART100 or permission of instructor.

ART/ADA177
Computer-Photographic Imaging
3 credits 6 periods lecture + lab
Introduction to the multiple elements of microcomputer-photographic imaging. Basic foundation in the use of the photographic manipulation of images using software programs. Special attention to aesthetic foundations underlying photographic composition. Prerequisites or Corequisites: ART100 or permission of instructor.

ART180
-- Designer’s Tools Modules
1 credit 2 periods lecture + lab
Introduction to the multiple elements of a selected visual art software package using the microcomputer. Basic foundation in the use of electronic techniques including appropriate input and output production devices. Prerequisites: ART100, or permission of instructor.

ART180AB
Designer’s Tools: Page Maker
ART180AC
Designer’s Tools: QuarkXPress
ART180AD
Designer’s Tools: Adobe Illustrator
ART180AE
Designer’s Tools: Adobe Photoshop
ART180AF
Designer’s Tools: Paint Software
ART180AH
Designer’s Tools: Aldus Freehand
ART180AI
Designer’s Tools: 3-D Studio Textures
ART180AJ
Designer’s Tools: 3-D Special Effects
ART180AK
Designer’s Tools: Adobe Premier
ART180AL
Designer’s Tools: Character Studio

ART181
Graphic Design I
3 credits 6 periods lecture + lab
Introduction to development of lettering and design skills through functional and aesthetic use of typography. Concentration on lettering for reproduction, type indication, historical development, type specification, and use of letter forms as design elements. Prerequisites: ART112 or permission of instructor.

ART182
Graphic Design II
3 credits 6 periods lecture + lab
Concept development and design solutions to problems in consumer advertising, sales promotion and public relations material. Interpreting art form and copy through creative graphic solutions. Pasteup and production processes. Prerequisites: ART181 or permission of instructor.
ART/ADA183
Computer Aided Graphic Arts I
3 credits 6 periods lecture + lab
Graphic design use in microcomputer; black and white graphics, standard and color brushes, lines, shapes, area fills and fonts. Application to illustration, advertising graphics, typography and video interaction. Prerequisites/Corequisites: ART100 or permission of instructor.

ART/ADA/MMT184
Computer Animation
3 credits 6 periods lecture + lab
The art of animation (animated sequences, special effects, titles, etc.) using the computer. Construction characters, background graphics, color, scaling, storyboard, cells, timing, editing, and surface rendering. Screening and discussion of selected animated short films and videos. Prerequisites: ART100, or ART111, or ART116, or permission of instructor.

ART/MMT185
3-D Modeling for Animation
3 credits 6 periods lecture + lab
Basic concepts of 3-D modeling. Anatomy of computer geometry; basic elements that make computer models - curves, surfaces, nubs, and polygons. 3-D translation, shading, materials, and rendering. Prerequisites: ART/MMT184, or ART/MMT184AC, or permission of the instructor.

ART/MMT185AA
3-D Modeling for Animation I
1 credit 2 periods lecture + lab
Basic concepts of 3-D modeling. Anatomy of computer geometry; basic elements of compounding objects and Boolean operations. Prerequisites: ART/MMT184, or permission of instructor.

ART/MMT185AB
3-D Modeling for Animation II
1 credit 2 periods lecture + lab
Basic concepts of 3-D modeling. Creating shapes using line, polygonal object construction, and lofting objects. Prerequisites: ART/MMT185AA, or permission of instructor.

ART/MMT185AC
3-D Modeling for Animation III
1 credit 2 periods lecture + lab
Basic concepts of 3-D modeling and the use of lights, cameras, materials, and other modifiers. Prerequisites: ART/MMT185AB, or permission of instructor.

ART/MMT190
Art of Web Site Design
3 credits 6 periods lecture + lab
Print vocabulary, relationships, and typographic style for HTML and World Wide Web publication. Discussion of color, proportion, and design emphasis. Producing Web sites using HyperText Markup Language (HTML), digital text, and graphics to produce artistic form and content for the Web. Prerequisites: ART180AB or ART180AC or ART180AE or permission of instructor.

ART/MMT190AA
Art of Website Design I
1 credit 2 periods lecture + lab
Print vocabulary, relationships, and typographic style for HTML and World Wide Web publication. Designing with text from visual, technical, and motion aspects. Prerequisites: ART180AB or ART180AC or ART180AE or permission of instructor.

ART/MMT190AB
Art of Website Design II
1 credit 2 periods lecture + lab
Producing Web site pages, using design and HyperText digital text and graphics. Prerequisites: ART190AA or permission of instructor.

ART/MMT190AC
Art of Website Design III
1 credit 2 periods lecture + lab
Producing Web sites, using artistic form and content. Interactive multimedia applications for on-line design. Prerequisites: ART190AB or permission of instructor.

ART/MMT191
Storyboarding and Layout
2 credits 4 periods lecture + lab
Introduction to storyboarding including film storytelling and scene presentation. Prerequisites: ART111 or ART/MMT187 or ART/MMT188.

ART/MMT192AA
3-D Modeling for Digital Media I
1 credit 2 periods lecture + lab
Development of 3-D models for multimedia productions. Inverse kinematics, use of fractals and materials to render finished models. Prerequisites: ART/MMT184 or permission of instructor.

ART/MMT192AB
3-D Modeling for Digital Media II
1 credit 2 periods lecture + lab
Development of 3-D models for multimedia productions. Use of morphing and particle systems for finished models. Prerequisites: ART/MMT192AA or permission of instructor.

ART/MMT192AC
3-D Modeling for Digital Media III
1 credit 2 periods lecture + lab
Development of 3-D models using advanced modeling and animation techniques. Prerequisites: ART/MMT192AB or permission of instructor.

ART255AA
Self Promotion
1 credit 1 period lecture
Career goals, presentation of artist, communication skills, keeping files and records, developing self-promotional materials. Prerequisites: None.

ART255AB
The Portfolio
1 credit 1 period lecture
Choosing the right pieces to include, presenting art work, developing the portfolio. Prerequisites: ART255AA or permission of instructor.

ART259
Monoprinting
3 credits 6 periods lecture + lab
Introduction to concepts and techniques for Monoprint making. Deals with la prima technique used in painting in first part of course. Multi-plate printing and how method of printing relates to use of color and separation in second part of course. Prerequisites: ART111 and ART113.

ART270
Intermediate Computer Photographic Imaging
3 credits 6 periods lecture + lab
Intermediate microcomputer-based photographic imaging techniques. Refinement of aesthetic awareness and personal expression. Prerequisites: ART177 or (ART177AA and ART177AB).

ART275
Lost Wax Casting I
3 credits 6 periods lecture + lab
Introduction to lost wax casting techniques for jewelry and small sculptures. Emphasis on design concepts as related to three-dimensional forms. Prerequisites: None.
ART276
Lost Wax Casting II
3 credits 6 periods lecture + lab
Advanced course in lost wax casting techniques for jewelry and small sculptures. Emphasis on the continuation of individual expression using the lost wax method. 
Prerequisites: ART275.

ART/ADA283
Computer Aided Graphic Arts II
3 credits 6 periods lecture + lab
Advanced skill development of graphic design through use of microcomputer. Emphasis on computer design and techniques for producing all types of camera-ready advertising art for printed matter and package design. Includes illustration, typography, photo imaging, and color separation. 
Prerequisites: ADA/ART183 or permission of instructor.

ART/ADA/MMT284
Intermedia Animation
3 credits 6 periods lecture + lab
Elements of electronic animation with interactive text graphics, photography, sound, film, and video construction. 
Prerequisites: ADA/ART/MMT184 or permission of instructor.

ART/ADA285
Multipresentation Graphics
3 credits 6 periods lecture + lab
Computer aided design and development of a company identity program; development of a videotape demonstrating market impact; preparation of a portfolio of completed art and graphics. 
Prerequisites: ART100, ART169, or permission of instructor.

ART/ADA289
Computer Illustration
3 credits 6 periods lecture + lab
Introduction to the multiple elements of commercial illustration using the microcomputer. Basic foundation in the use of computer techniques including color paint and draw programs for the production of commercial illustrations for publications and printed matter. Use of input and output devices. 
Prerequisites/Corequisites: ART100 or permission of instructor.

ART290
Studio Art
3 credits 6 periods lecture + lab
Studio course for art majors allowing continuation in a subject field. 
Prerequisites: All 100 and 200-level courses in subject matter area, or permission of instructor.

ART291
Digital Prepress
3 credits 6 periods lecture + lab
Introduction to multiple elements of digital prepress concepts and techniques using the microcomputer. Basic foundation in the use of trapping and stripping software for the desktop. Use of electronic page layout techniques including color separations, registration, spot colors, impositions, signatures, and output production devices. Emphasis on prepress concepts. 
Prerequisites: ART100 or permission of instructor.

ART291+-
Art Workshop/Seminars
1, 2, 3 credits 2, 4, 6 periods lecture + lab
Advanced level workshop seminar in art disciplines. 
Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department/Division Chair.

ART297AB
Computer Graphic Design Internship
2 credits 2 periods lecture + lab
Computer graphic design work experience in a business or industry. 80 hours of designated work per credit. Maximum of 3 credits allowed. 
Prerequisites: Departmental approval.

ART298AA-AC
Special Projects
1-3 credits 1-3 periods lab
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment 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.

ART131
Photography I
3 credits 6 periods lecture + lab
Basic black and white photographic principles and techniques. Camera functions and controls. Darkroom experience in film processing and printmaking. Camera required. 
Prerequisites: None.

ART132
Photography II
3 credits 6 periods lecture + lab
Advanced camera and darkroom techniques. Aesthetic awareness with personal expression. 
Prerequisites: ART131, or permission of instructor.

ART133
Photography III
3 credits 6 periods lecture + lab
Refinement of aesthetic and technical aspects producing convincing images of highest quality. 
Prerequisites: ART132 or permission of instructor: ART111 and ART116 recommended but not required.

ART137
Alternative Photographic Processes
3 credits 6 periods lecture + lab
Emphasis on development of alternative photographic processes including technique, aesthetics, and creative imagery. Exploration of various types of non-silver photographic processes including cyanotype, Van Dyke, Polaroid imaging, and others. 
Prerequisites: None.

ART138
Commercial Photography I
3 credits 6 periods lecture + lab
Basic techniques of lighting, camera work, and reproduction of commercial photography. Cooperation with commercial art community. 
Prerequisites: None.

ART139
Commercial Photography II
3 credits 6 periods lecture + lab
Continuation of ART138. Advanced techniques with portfolio organization and presentation. 
Prerequisites: ART138.
ART140  
Portrait Photography  
2 credits 4 periods lecture + lab  
Insight into the profession of Portrait Photography. Application of the principles of design and fine art in lighting, composition, and posing.  
Prerequisites: ART131 or permission of instructor.

ART142  
Introduction to Digital Photography  
3 credits 6 periods lecture + lab  
Fundamentals of digital photography. Includes camera operations, exposure techniques, introduction to digital output, and theory of digital photography.  
Prerequisites: None.  
Course Note: Digital camera required.

ART/ADA177  
Computer-Photographic Imaging  
3 credits 6 periods lecture + lab  
Introduction to the multiple elements of microcomputer-photographic imaging. Basic foundation in the use of the photographic manipulation of images using software programs. Special attention to aesthetic foundations underlying photographic composition.  
Prerequisites or Corequisites: ART100 or permission of instructor.

ART234  
Color Photography I  
3 credits 6 periods lecture + lab  
Basic principles of color theory, camera and darkroom techniques, using positive materials.  
Prerequisites: ART131 or permission of instructor.

ART235  
Color Photography II  
3 credits 6 periods lecture + lab  
Basic theories and techniques of color negative materials.  
Prerequisites: ART234 or permission of instructor.

ART295DA, DB, & DC  
Art Workshop/Seminar: Photography  
1, 2, & 3 credits 2, 4, & 6 periods lecture + lab  
Advanced level workshop seminar in art disciplines.  
Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department/Division Chair.

ASB, ASM – Anthropology

ASB102  
Intro to Cultural and Social Anthropology  
3 credits 3 periods lecture  
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.

ASB202  
Ethnic Relations in the United States  
3 credits 3 periods lecture  
Basic concepts and processes, including historic overview, of interethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to interethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world.  
Prerequisites: None.

ASB211  
Women in Other Cultures  
3 credits 3 periods lecture  
Cross-cultural analysis of the economic, social, political, and religious factors that affect women’s status in traditional and modern societies.  
Prerequisites: None.

ASB214  
Magic, Witchcraft and Healing: An Introduction to Comparative Religion  
3 credits 3 periods lecture  
Origins, elements, and forms of religion; a comparative survey of religious beliefs, myths, rituals and symbolism including magic, witchcraft and healing as practiced in selected regions of the world; the place of religion in the total culture.  
Prerequisites: None.

ASB222  
Buried Cities and Lost Tribes: Old World  
3 credits 3 periods lecture  
Introduction to archaeology through discoveries and the researchers who made them. Emphasis on methods of archaeological fieldwork and what these discoveries reveal about humanity, including the nature of archaeological inquiry, the development of human social groups, the changing role of religion in evolving societies, the origins of agriculture, the origins of settled lifeways, the rise of cities and complex societies, political strife across different cultures and the forces which tend to fragment societies. Examples drawn from Africa, Asia, Europe, the Pacific Islands, and Australia.  
Prerequisites: None.

ASB223  
Buried Cities and Lost Tribes: New World  
3 credits 3 periods lecture  
Introduction to archaeology through discoveries and the researchers who made them. Emphasis on methods of archaeological fieldwork and what these discoveries reveal about humanity, including the nature of archaeological inquiry, the development of human social groups, the changing role of religion in evolving societies, the origins of agriculture, the origins of settled lifeways, the rise of cities and complex societies, political strife across different cultures and the forces which tend to fragment societies. Examples drawn from North American, Central America, and South America.  
Prerequisites: None.

ASB235  
Southwest Archaeology  
3 credits 3 periods lecture  
Anthropological perspective and comparative study of the cultures of prehistoric native peoples of the North American southwest.  
Prerequisites: None.

ASB245  
Indians of the Southwest  
3 credits 3 periods lecture  
Comparative study of the cultures, including the histories and present status, of Indians of the Southwest.  
Prerequisites: None.
ASM104  
Bones, Stones, and Human Evolution  
4 credits 5 periods lecture + lab  
Study of human evolution and variation;  
including fossil hominids and their tools,  
primate anatomy and behavior, human  
genetics, and the environment and  
human biology. Prerequisites: None.

AST – Astronomy

AST101  
Survey of Astronomy  
3 credits 3 periods lecture  
Survey of astronomy for the non-  
technical student. The history, contents,  
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.

AST102  
Survey of Astronomy Laboratory  
1 credit 3 periods lab  
Astronomical observations and exercises  
designed to familiarize students with the  
sky, telescopes, and methods used in  
astronomy. Prerequisites: None. May  
accompany AST101.

AST111  
Introduction to Astronomy I  
3 credits 3 periods lecture  
Introduction to astronomy for the non-  
science major. History of astronomy,  
properties of light, instruments, the solar  
system and nearby stars. Prerequisites:  
MAT092 or equivalent.

AST112  
Introduction to Astronomy II  
3 credits 3 periods lecture  
Introduction to astronomy for the non-  
science major. Structure and evolution of  
stars; star clusters; galaxies; cosmology.  
Prerequisites: MAT092 or equivalent.

AST113  
Astronomy I Laboratory  
1 credit 3 periods lab  
Astronomical observations and exercises  
to supplement AST111. Prerequisites or  
Corequisites: AST111.

AST114  
Astronomy II Laboratory  
1 credit 3 periods lab  
Astronomical observations and exercises  
to supplement AST112. Prerequisites or  
Corequisites: AST112.

BIO – Biology

BIO101  
General Biology (Non-Majors):  
Selected Topics  
4 credits 6 periods lecture & lab  
Selected biological topics, including  
methods used by biologists to make  
discoveries and evaluate scientific data.  
Field trips may be required at students’  
expense. Prerequisites: None.

BIO105  
Environmental Biology  
4 credits 6 periods lecture & lab  
Fundamentals of ecology and their  
relevance to human impact on natural  
ecosystems. Field trips may be required  
at students’ expense. Prerequisites: None.

BIO107  
Introduction to Biotechnology  
4 credits 6 periods lecture & lab  
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  
bio technology. Prerequisites: None.

BIO108  
Plants and Society  
4 credits 6 periods lecture & lab  
A global study of plants in relation to  
humans; as a source of food, fiber, drugs,  
and other products; for aesthetic value,  
survival, and energy. Prerequisites: None.

BIO109  
Natural History of the Southwest  
3 credits 3 periods lecture  
Study of the common plants and animals  
of the Southwest including their  
distribution, adaptation, behavior, and  
ecology. Prerequisites: None.

BIO110  
Laboratory for Natural History of  
the Southwest  
1 credit 3 periods lab  
Introduction to basic field and laboratory  
techniques used in the study of natural  
history. Specific field problems  
presented dealing with plant and animal  
analysis and ecological  
interrelationships. Weekend field trips  
required at students’ expense.  
Prerequisites or Corequisites: BIO109 or  
permission of instructor.

BIO145  
Marine Biology  
4 credits 6 periods lecture & lab  
A survey of marine environments and  
their biotic communities with emphasis  
on the natural history of marine  
organisms. Prerequisites: None.

BIO148  
Coral Reef Ecology  
1 credit 1 period lecture  
Introduction to ecology of coral reefs.  
Emphasis on reef environments, corals,  
reef fishes, and human impacts on reefs.  
Prerequisites: None.

BIO149  
Field Biology Modules AF-AO  
0.5-4 credits 3.5-28 periods lab  
Field expeditions designed to study  
natural history of selected geographical  
locations. Field observations of behavior,  
distribution, and adaptations of  
organisms within natural communities  
emphasized. May be repeated for up to  
four hours of elective credit.  
Prerequisites: None.

BIO156  
Introductory Biology for Allied Health  
4 credits 6 periods lecture & lab  
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: None. One year high  
school chemistry or one semester of  
college-level chemistry recommended.

BIO160  
Introduction to Human Anatomy and  
Physiology  
4 credits 6 periods lecture & lab  
Principles of scientific method. Structural  
organization, homeostasis and control  
mechanisms of the body. Specific  
chemistry concepts. Structure and  
function of the major systems of the  
body. Prerequisites: None.

BIO162  
Microbiology Concepts for Allied  
Health  
2 credits 3 periods lecture & lab  
Types of microorganisms. Principles of  
growth and reproduction for specific  
types of microorganisms. Chain of  
disease transmission and defense  
mechanisms. Use of compound  
microscope. Safe handling and cultivating  
of specific microbes. Methods of  
stereilization and use of disinfectants and  
chemotherapeutic agents. Prerequisites:  
None.
Course Descriptions

BIO181
General Biology (Majors) I
4 credits 6 periods lecture & lab
Prerequisites: None. One year of high school chemistry or one semester of college-level chemistry is strongly recommended.

BIO182
General Biology (Majors) II
4 credits 6 periods lecture & lab
Additional principles of structure and function of living things at molecular, cellular, and organismic levels of organization. Field trips may be required at students’ expense. Prerequisites: None. As an alternative to BIO212AC. A grade of “C” or better in BIO156, or BIO181.

BIO201
Human Anatomy and Physiology I
4 credits 6 periods lecture & lab
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 BIO181.

BIO202
Human Anatomy and Physiology II
4 credits 6 periods lecture & lab
Continuation of structure and function of the human body. Topics include endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems; and fluid and electrolyte balance. Prerequisites: A grade of “C” or better in BIO201.

BIO205
Microbiology
4 credits 6 periods lecture & lab
Study of microorganisms and their relationship to health, ecology, and related fields. Prerequisites: A grade of “C” or better in BIO156, or BIO181.

BIO214
Biotecology Internship
4 credits 4 periods lecture
Internship experience in a biotechnology laboratory. Requires 240 clock hours in the laboratory setting, setting, achieving, and evaluating goals for hands-on learning experience in a biotechnology laboratory. Development of skills and knowledge needed to work in a biotechnology laboratory. Prerequisites: None. As an alternative to BIO212AC.

BIO215
Biotechnology Internship
3 credits 3 periods lecture
Internship experience in a biotechnology laboratory. Requires 240 clock hours in the laboratory setting, setting, achieving, and evaluating goals for hands-on learning experience in a biotechnology laboratory. Development of skills and knowledge needed to work in a biotechnology laboratory. Prerequisites: Permission of Program Director and (BIO212AA or BIO212BA). Course Note: May be taken repeated for a total of six (6) credits.

BIO219
Geographic Information Systems and Global Positioning Systems in Environmental Investigations
4 credits 6 periods lecture & lab
Hands-on experience using Geographic Information Systems (GIS) and Global Positioning Systems (GPS) in environmental investigations. Practical integration of biological data collected with GPS into real-world environmental applications. Prerequisites: None. Course Note: May receive credit for only one of the following: BIO219 or GPH219.

BIO247
Applied Biosciences: Biotechnology
4 credits 6 periods lecture & lab
Prerequisites: A grade of “C” or better in BIO181. One semester of college-level chemistry or equivalent recommended.

BIO298AA, AB, AC
Special Projects
1-3 credits 1-3 periods lab
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment 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.

BLT – Building Safety & Construction Technology

BLT120
Techniques of Building Inspection
3 credits 3 periods lecture
Theory and practice of zoning, foundation, structural, mechanical and electrical inspection in modern residential and commercial construction. Prerequisites: None.

BLT122
Basic Engineering for Building Inspectors and Contractors I
3 credits 3 periods lecture
Basic engineering mechanics, gravity loads, shears, bending moments, wood frame construction, deck joints, beans, columns, bracing and shear walls. Prerequisites: BLT120 and MAT187 or equivalent, or departmental permission.

BLT124
Designing for the Americans with Disabilities Act (ADA)
3 credits 3 periods lecture
In-depth analysis of federal standards described in the Americans with Disabilities Act(ADA). Reviews the state of Arizona’s enforcement document (AzDAAG). Focuses on helping designers, architects, and building officials create barrier-free buildings and facilities. Prerequisites: None.

BLT126
Soil Mechanics
3 credits 3 periods lecture
Prerequisites: MAT182 or MAT187.

BLT128
Mechanical Codes
3 credits 3 periods lecture
Course Note: May receive credit for only one of the following: BIO219 or GPH219.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Periods</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLT129</td>
<td>Materials of Construction</td>
<td>3</td>
<td>3</td>
<td>Fundamental characteristics of modern construction materials and the effective use of these materials in construction.</td>
<td>None.</td>
</tr>
<tr>
<td>BLT131</td>
<td>Applied Electric Codes</td>
<td>4</td>
<td>4</td>
<td>National Electric Code (NEC) administration and application. NEC requirements for safe installation of system control equipment and design of electric utilization systems. Identification of wiring systems and permitted uses. Application of NEC requirements for hazardous locations, specific occupancies, and special uses of electric equipment.</td>
<td>None.</td>
</tr>
<tr>
<td>BLT200</td>
<td>Construction Management: Field Operations</td>
<td>3</td>
<td>3</td>
<td>Skills and techniques necessary for management of construction field operations. Includes job scheduling, inspection techniques, personnel relations, safety, and the scope and supervision of the overall construction process.</td>
<td>DFT126, GTC121, or departmental permission.</td>
</tr>
<tr>
<td>BPC – Business — Personal Computers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BPC/BTO005</td>
<td>Brief Introduction to Computers</td>
<td>0.25</td>
<td>0.25</td>
<td>Introductory course in fundamentals of computers, including hardware components, operating system characteristics, and basic software applications.</td>
<td>None.</td>
</tr>
<tr>
<td>BPC101AA</td>
<td>Introduction to Microcomputers I: IBM</td>
<td>1</td>
<td>2</td>
<td>Microcomputer software applications for the IBM personal computer, including electronic spreadsheet and word processing, keyboard review, and a desktop environment.</td>
<td>None.</td>
</tr>
<tr>
<td>BPC101BA</td>
<td>Introduction to Microcomputers II: IBM</td>
<td>1</td>
<td>1</td>
<td>Microcomputer software applications for the IBM personal computer, including database management, computer graphics, electronic spreadsheet, and word processing, and operating system commands.</td>
<td>BPC101AA.</td>
</tr>
<tr>
<td>BPC101CA</td>
<td>Introduction to Microcomputers III: IBM</td>
<td>1</td>
<td>1</td>
<td>Individualized advanced applications of software selected to solve specific problems on the IBM.</td>
<td>BPC101BA or permission of instructor.</td>
</tr>
<tr>
<td>BPC102AD</td>
<td>Using Windows: Level I</td>
<td>0.5</td>
<td>0.5</td>
<td>Basic commands and methods associated with the Windows operating system.</td>
<td>None.</td>
</tr>
<tr>
<td>BPC102BD</td>
<td>Using Windows: Level II</td>
<td>0.5</td>
<td>0.5</td>
<td>Advanced commands and methods of the Windows operating system.</td>
<td>BPC102AD or permission of instructor.</td>
</tr>
<tr>
<td>BPC104AD</td>
<td>Using Excel: Level I</td>
<td>0.5</td>
<td>0.5</td>
<td>Use of Excel to create, edit, save and print worksheets.</td>
<td>None.</td>
</tr>
<tr>
<td>BPC104CD</td>
<td>Using Excel: Level III</td>
<td>0.5</td>
<td>0.5</td>
<td>Use of Excel to produce worksheets utilizing macros for template development and automation of repetitious tasks, and worksheet methods for the storage and management of data.</td>
<td>BPC104BD or permission of instructor.</td>
</tr>
<tr>
<td>BPC107AH</td>
<td>Using Access: Level I</td>
<td>0.5</td>
<td>0.5</td>
<td>Use of Access to create, edit and selectively report data.</td>
<td>None.</td>
</tr>
<tr>
<td>BPC107BH</td>
<td>Using Access: Level II</td>
<td>0.5</td>
<td>0.5</td>
<td>Use of Access commands to manipulate data files, generate data entry screens, generate complex reports with multiple level totals, transport data between a computer database program and other programs. Creation and use of command files.</td>
<td>BPC107AH or permission of instructor.</td>
</tr>
<tr>
<td>BPC110</td>
<td>Computer Usage and Applications</td>
<td>3</td>
<td>4</td>
<td>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.</td>
<td>None.</td>
</tr>
<tr>
<td>BPC/OAS111AA</td>
<td>Computer Keyboarding I</td>
<td>1</td>
<td>1.7</td>
<td>Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols.</td>
<td>None.</td>
</tr>
</tbody>
</table>
BPC/OAS113  
Micro-Alphabetic Indexing  
1 credit 1.7 periods lecture + lab  
Mastery of essential microcomputer filing skills. Emphasis on indexing and alphabetizing individual and business names; subject, geographic, and numeric methods; and cross-referencing.  
Prerequisites: None.

BPC/CIS114AE  
Excel: Level I  
1 credit 2 period lecture + lab  
Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting and projections.  
Prerequisites: BPC/CIS114AE or permission of instructor.

BPC/CIS114BE  
Excel: Level II  
1 credit 2 periods lecture + lab  
Additional Excel spreadsheet techniques, including macro programming, database searching, extraction, and linking to obtain prescribed reports and graphs.  
Prerequisites: BPC/CIS114AE or permission of instructor.

BPC/CIS114CE  
Excel: Level III  
1 credit 2 periods lecture  
Additional Excel spreadsheet techniques, including complex macros, statistics, and matrix manipulation. Project design using multiple, integrated spreadsheets.  
Prerequisites: BPC/CIS114BE or permission of instructor.

BPC115AA  
Personal Finance Software: Quicken – Level I  
1 credit 2 periods lecture + lab  
Introduction to the basic features of Quicken, a computerized personal finance software program.  
Prerequisites: None.

BPC/CIS117AM  
Database Management: Microsoft Access - Level I  
1 credit 2 periods lecture + lab  
Introduction to the basic elements of a current version of the Microsoft Access database management program, for casual and beginning users.  
Prerequisites: None.

BPC/CIS117BM  
Database Management: Microsoft Access - Level II  
1 credit 2 periods lecture + lab  
Exploration of additional components of the Microsoft Access database management program.  
Prerequisites: BPC117AM or CIS117AM or permission of instructor.

BPC/CIS117CM  
Database Management - Microsoft Access - Level III  
1 credit 1 period lecture + lab  
Application of the features of the Microsoft Access program to some common database management problems.  
Prerequisites: BPC117BM or CIS117BM.

BPC/CIS118AB  
PowerPoint: Level I  
1 credit 2 periods lecture + lab  
Use of PowerPoint software to produce professional-quality presentation visuals.  
Prerequisites: None.

BPC/CIS118BB  
PowerPoint: Level II  
1 credit 2 periods lecture + lab  
Use of PowerPoint software add movement and sound to desktop presentations to enhance audience attention.  
Prerequisites: BPC/CIS118AB.

BPC/CIS118CB  
PowerPoint: Level III  
1 credit 1 period lecture + lab  
Use of PowerPoint software for advanced desktop presentation techniques, including advanced animation and sound sequences.  
Prerequisites: BPC/CIS118BB.

BPC/CIS118DB  
Desktop Presentation: PowerPoint  
3 credits 5 periods lecture + lab  
Use of PowerPoint to produce professional-quality presentation visuals with animation and sound.  
Prerequisites: None.

BPC/CIS120AF  
Computer Graphics: Adobe Photoshop: Level I  
1 credit 2 periods lecture + lab  
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.

BPC/CIS120BF  
Computer Graphics: Adobe Photoshop: Level II  
1 credit 2 periods lecture + lab  
Provides students with the capability to use Adobe Photoshop graphics software on a computer. Includes working with masks, channels and layers, and combining raster and vector graphics.  
Prerequisites: BPC/CIS120AF.

BPC/CIS121AB  
MS-DOS Operating System  
1 credit 2 periods lecture + lab  
Use of the MS-DOS operating system: basic concepts, internal and external commands, subdirectories, and editor.  
Prerequisites: None.

BPC/CIS121AE  
Windows Operating System: Level I  
1 credit 2 periods lecture + lab  
Specific topics include booting and shutting down the computer, navigating the desktop, start button features, taskbar status, and receiving on-line help support. Exploring and managing folders and files, running programs, and learning about Wordpad and Paint application programs.  
Prerequisites: None.

BPC/CIS122AE  
Windows Operating System: Level II  
1 credit 2 periods lecture + lab  
Additional capabilities of the Windows '95 program that configure devices and customize the presentation of the operating system. System tools, control panel utilities, the My Computer, Network Neighborhood, and Microsoft Exchange desktop icons. Other helpful utilities presented.  
Prerequisites: BPC/CIS121AE or permission of instructor.
BPC125
Microcomputer Set Up & Maintenance
1 credit 1 period lecture + lab
How to install and maintain a microcomputer (personal computer). Steps used to set up a new or add options to a previously installed microcomputer. Installation of internal options (memory, graphics, modems, etc.), as well as external options and devices (printers, monitors, communications, etc.). Troubleshoot (identify and repair or have repaired) microcomputer problems.
Prerequisites: None.

BPC128
Introduction to Desktop Publishing
1 credit 2 periods lecture + lab
Presents basic concepts of commercially prepared software used to do desktop publishing. Incorporates a combination of narrative and pictorial/graphic creation and presentation, including set up, text entry, graphic generation, text and graphic merging, and other computer-based functions.
Prerequisites: None.

BPC128AF
Introduction to Desktop Publishing: MS Publisher
1 credit 2 periods lecture + lab
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.

BPC/OAS130
Beginning Word Processing
1 credit 2 periods lecture
Work with word processing software to create, revise and print documents.
Prerequisites: Type 20 words per minute or permission of instructor.

BPC/OAS130DK
Beginning Word
1 credit 2 periods lecture
Using Word for Windows to create, edit, and print documents. Prerequisites: Ability to keyboard a minimum of 20 wpm or permission of instructor.

BPC/CIS133AA
Internet/Web Development Level I-A
1 credit 2 periods lecture + lab
Overview of the Internet and its resources. Hands-on experience with various Internet communication tools.
Prerequisites: None.

BPC/CIS133BA
Internet/Web Development Level I-B
1 credit 1 period lecture + lab
Exploration of additional Internet resources. Hands-on experience with a variety of resource discovery and information retrieval tools as well as enhancement of Web pages.
Prerequisites: BPC/CIS133AA.

BPC/CIS133CA
Internet/Web Development Level I-C
1 credit 1 period lecture + lab
Web site development using enhancement codes. Includes frames, style sheets and javascript as well as design principles and typography.
BPC/CIS133BA.

BPC/CIS133DA
Internet/Web Development Level I 3 credits 4 periods lecture + lab
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 is also included. Prerequisites: None.

BPC/OAS135DD
WordPerfect: Level I
2 credits 2 periods lecture
Using WordPerfect word processing software to create and name files, edit text, format, and print a variety of documents. Prerequisites: The ability to use a keyboard at a minimum of 24 wpm or permission of instructor.

BPC/OAS135DK
Word: Level I
2 credits 2 periods lecture
Using Word word processing software to create and name files, edit text, format, and print a variety of documents. Prerequisites: The ability to use a keyboard at a minimum of 24 wpm or permission of instructor.

BPC138AA
Windows Desktop Design & Publishing
3 credits 4 periods lecture + lab
Use of Windows-based microcomputers and appropriate commercial software packages to compose and print textual and graphic materials of high quality. Includes overview of micro operating system, word processing of copy, use of graphics programs, layout of design elements, and printing alternatives.
Prerequisites: CIS105 or BPC110 or permission of instructor.

BPC170
Computer Maintenance I: A+ Prep
3 credits 4 periods lecture + lab
Technical aspects of the microcomputer, including system setup (hardware and software) and basic troubleshooting. Emphasis on basic troubleshooting, use of tools, hardware components and hardware/software interfacing. Prerequisites: CIS105 and BPC121AB or permission of instructor.

BPC210
Advanced Computer Usage & Applications
3 credits 4 periods lecture + lab
Advanced application of software for business and personal computers including word processing, spreadsheet, database, and presentation. Includes integration of applications and Internet. Prerequisites: BPC110, or permission of instructor.

BPC225
Computer Configuration and Enhancement
1 credit 2 periods lecture + lab
Configuration and enhancement of a computer. Emphasis on configuration of hardware and software to optimize computer performance. Includes memory configuration and the identification and troubleshooting of configuration problems. Prerequisites: BPC125 or permission of instructor.

BPC/HCE229
Automated Computer System for Medical Office Management
1 credit 3 periods lecture + lab
Principles and procedures in using an office automated computerized system for entering patient information and tracking patient billing. Includes use of accounting cycle from originating data to closing ledger entries. Prerequisites: None. Corequisite: HCC130, HCC145, or equivalent, or permission of program director.

BPC/OAS235DD
WordPerfect: Level II
2 credits 2 periods lecture
Using WordPerfect word processing software features such as math, columns, macros, styles, graphics, sort, outlines, and table of contents. Prerequisites: BPC/OAS135DD or permission of instructor.
BPC170 with grade of C or permission of instructor.

ENG101. ENH112 (CET102)
Course Descriptions

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BPC/OAS235DK
Word: Level II
2 credits 2 periods lecture
Using Word word processing software features such as math, columns, macros, styles, graphics, sort, outlines, and tab of contents. Prerequisites: BPC/OAS135DK or permission of instructor.

BPC270
Microcomputer Maintenance II
3 credits 4 periods lecture + lab
Advanced technical aspects of maintaining and servicing microcomputers. Emphasis placed on installation, periodic maintenance, diagnosis, and/or problem resolution of power system, motherboard, memory, storage devices, and network interface cards. Extensive use of software diagnostic and utility tools. Prerequisites: BPC170 with grade of C or better, or permission of instructor.

BTO – Business Technology for the Office

BTO/MGT148
Office Ethics and Culture
2 credits 2 periods lecture
Ethical issues and standards in the office; making ethical choices. Relationships and attitudes in the office. Office politics. Prerequisites: None.

CET – Civil Engineering Technology

CET101
Surveying I
3 credits 5 periods lecture & lab
Fundamental surveying principles including theory and field work using the level and transit, horizontal measurement by tape or stadia, benchmark and profile leveling traverse surveys and computations, establishment of line and grade. Designed to develop semi-professional personnel working for private or government engineering agencies. Prerequisites: DFT107, or GTC108, or GTC161, or MAT182 or equivalent, or departmental permission.

CET102
Surveying II
3 credits 5 periods lecture & lab
Surveying principles including triangulation, municipal and land surveys, topographic surveys, earthwork, state plane coordinate systems, stadia methods, practical astronomy, highway curves, superelevations and construction. Prerequisites: CET101 or departmental permission.

CET103
Construction Methods
3 credits 3 periods lecture
Modern construction techniques: planning methods, critical path method (CPM), excavation and earthmoving practices, estimating and work scheduling, concrete design and placement practices. Includes reinforced concrete, prestressed concrete, carpentry, asphalt characteristics, proper proportioning of aggregate and important safety methods. Introduction to heavy construction equipment use. Prerequisites: None.

CET105
Highway Technology
3 credits 3 periods lecture
Economics of highway locations, rights-of-way, curves, drainage problems, bridge structures, road building equipment, highway financing, and administrative problems at the state, county and city levels. Prerequisites: None.

CET150
Introduction to Geodesy and Map Projections
3 credits 3 periods lecture
Coordinate frames used in geodesy, photogrammetry, surveying, and mapping. Cartesian, spherical, and ellipsoidal coordinates. Introduction to kinematics, gravity field, and size and shape of earth. Positioning in three dimensions. Introduction to map projections and associated coordinate systems. Theory and application of the plane coordinate systems with emphasis on Arizona. Development of projections from Global Positioning System (GPS) observations. Prerequisites: (CET102 and MAT182) or departmental permission.

CET171
Construction Contracts
3 credits 3 periods lecture
Legal aspects of construction contracts, writing and interpretation of specifications, prequalifications, and use of performance bonds. Prerequisites: None.

CET201
Boundary Control & Legal Principles I
3 credits 3 periods lecture
Principles of land surveying, boundary controls, ethical and legal principles, and office practices. Prerequisites: CET101 or departmental permission.
CET202
Boundary Control & Legal Principles II
3 credits 3 periods lecture
Application of principles to actual case studies. Emphasis on proper form and clarity in legal description writing. Procedure for filing subdivision plats and preparation for land surveyors’ registration examinations. Prerequisites: CET201 or departmental permission.

CET205
Photogrammetry
3 credits 3 periods lecture
An introduction to the study of aerial cameras, equipment, flight procedures, and interpretation of aerial photographs, including stereoscopic principles used in planimetric and topographic maps, map projections, grids, and forms. Practical applications of principles stressed. Prerequisites: CET102 or departmental permission.

CET211
Strength of Materials
3 credits 3 periods lecture
A study of strength and application of the materials of engineering construction, including the mechanics of beams, shafts, and bolted and welded connections under various loading conditions. Prerequisites: DFT107, or ELT102, or (MAT151 and MAT182), or MAT187, or equivalent, or permission of department.

CET241
Fundamentals of Traffic Engineering I
3 credits 3 periods lecture
Basic study of traffic movement, ordinances, mechanical controls, planning, street and highway design, parking, and traffic engineering organization. Training for personnel as civil engineer technicians. Prerequisites: None.

CET250
Public Land Survey System
3 credits 3 periods lecture
Overview of unique requirements to determine land boundaries according to the Manual of Instructions for the Survey of Public Lands of the United States, including history of the system, lotted sections, proportioning, subdividing, and evidence analysis. Emphasis on rules in order to perform any boundary survey, particularly for Arizona. Prerequisites: CET102 and CET201.

CET257
Route and Construction Surveying
3 credits 3 periods lecture + lab
Principles and field practice of route and construction surveying, including route control surveys, construction control, topographic mapping, highway curves, and computations for roadways, utilities, bridges, buildings, small commercial sites, and subdivisions. Prerequisites: CET102 or departmental permission.

CFS - Child & Family Studies & ECH - Early Childhood Education

CFS101AH
Art Activities for the Young Child
1 credit 1 period lecture
(Not offered every semester)
The creative use of art media and techniques at appropriate developmental levels. Prerequisites: None.

CFS101AP
Science Activities for the Young Child
1 credit 1 period lecture
(Not offered every semester)
Interpreting the study of science in early childhood education as a part of a dynamic growth process offered by the child’s daily life experiences. Prerequisites: None.

CFS106
Stress Management in the Family
1 credit 1 period lecture
(Not offered every semester)
Impact of stress factors on the family. Managing time and stress in the home. Options for coping with anxiety. Prerequisites: None.

CFS114
Working With the Hyperactive Child
1 credit 1 period lecture
(Not offered every semester)
Causes of hyperactivity in children; focus on the family’s role in identification, treatment and school/community support. Prerequisites: None.

CFS116
Discipline and Guidance
3 credits 3 periods lecture
Age appropriate principles for disciplining and guiding young children’s behavior in child care settings, including interpersonal and environmental strategies. Observational opportunities provided. Prerequisites: None.

CFS121AA
Single Parent Family-Adjustment
1 credit 1 period lecture
Overview of issues facing single parent families. Examination of adjustment issues with emphasis on relationships. Methods of adapting family life to meet the needs and variations of one-parent families. Prerequisites: None.
CFS157
Marriage and Family Life
3 credits 3 periods lecture
Study of marriage and the family as a social system, including models of family analysis, intra- and interpersonal relations, and cross-cultural and historical patterns. Prerequisites: None.

CFS/ECH176
Child Development
3 credits 3 periods lecture
Study of human development from the prenatal stage through adolescence, with consideration of parent and adult roles in the life experience of the growing child. Independent observation of children and personal investigation into child-related issues in contemporary America included. Prerequisites: None.

CFS177
Parent-Child Interaction
3 credits 3 periods lecture
(Not offered every semester)
Positive methods to strengthen relationships and resolve conflicts with children. Focus on effective interpersonal skills and guidance techniques. Prerequisites: None.

CFS178
Survey of Early Childhood Education
3 credits 3 periods lecture
Orientation to basic concepts of day care and nursery programs. History and philosophy of child care services including state regulations governing those services. Observation opportunities provided. Prerequisites: None.

CFS182
Parenting the Early Adolescent: Ages Ten to Fourteen
1 credit 1 period lecture
Emphasis on the early adolescent developmental period, ages ten to fourteen, and the importance of the parent-child relationship, as well as strategies to ensure successful teen years. Prerequisites: None.

CFS183
Contemporary Issues in Adolescence
3 credits 3 periods lecture
Current issues that impact adolescent development and behavior explored. Comprehensive and specific strategies for addressing these issues as parents or professionals working with teens emphasized. Issues related to adolescent sexuality, abuse, mental health, violence, and risk behaviors included. Prerequisites: None.

CFS205
Human Development
3 credits 3 periods lecture
(Not offered every semester)
Explores the growth and development process over the human life span. Research and theoretical approaches; physical, cognitive, social, and personality development from birth through adulthood and death. Prerequisites: None.

CFS212
Creative Activities for the Young Child
3 credits 3 periods lecture
Children's development in play, creativity and the arts. Focus on learning environment for creative expression. Field experiences with children in groups required. Prerequisites: CFS176 or ECH176 or permission of instructor.

CFS224
Curriculum Planning for Diversity
3 credits 3 periods lecture
(Not offered every semester)
Practical early childhood classroom applications for a diverse population, including integration of cultures, generations, genders, and races into the classroom, facilitation of second language acquisition, and practical teaching strategies which are also developmentally appropriate. Prerequisites: CFS/ECH176.

CFS256
Management in the Family
3 credit 3 periods lecture
(Not offered every semester)
Management as a means to the realization of individual and family values and goals; creation, allocation, and use of resources. Focus on decision making. Prerequisites: None.

CFS257
Working with Families with Diverse Needs
3 credits 3 periods lecture
(Not offered every semester)
A collaborative approach to working with families with diverse needs. Examines the effect of specific challenges on the family system. Presents techniques for those working with families to facilitate stress management, conflict resolution, and utilization of community and personal resources to aid in the strengthening of the family unit. Prerequisites: None.

CFS263
Child & Family Studies Seminar
1 credit 1 period lecture
Classroom portion of Child and Family Studies Internship. Emphasizes the blend of job-related activities including career exploration, employment procedures, human relations, and on-the-job problems. Prerequisites: Departmental approval. Corequisites: CFS264AA or CFS264AB or CFS264AC, initial enrollment in internship module.

CFS264AA
Child & Family Studies Internship
1 credit 5 periods lab
Laboratory portion of Child and Family Studies Internship. Five hours of work weekly. Supervision and evaluation by a coordinator. May be repeated for a total of six (6) credits. Prerequisites: Departmental approval. Corequisites: CFS263 the first time enrolled in any CFS264 module.

CFS264AB
Child & Family Studies Internship
2 credits 10 periods lab
Laboratory portion of Child and Family Studies Internship. Ten hours of work weekly. Supervision and evaluation by a coordinator. May be repeated for a total of six (6) credits. Prerequisites: Departmental approval. Corequisites: CFS263 the first time enrolled in any CFS264 module.

CFS264AC
Child & Family Studies Internship
3 credits 15 periods lab
Laboratory portion of Child and Family Studies Internship. Fifteen hours of work weekly. Supervision and evaluation by a coordinator. May be repeated for a total of six (6) credits. Prerequisites: Departmental approval. Corequisites: CFS263 the first time enrolled in any CFS264 module.

CFS267
Adult-Adolescent Interaction
3 credits 3 periods lecture
(Not offered every semester)
Prepares social service workers, teachers, and parents to interact effectively with teenagers. Develops understanding of the interaction between adolescents and their families. Teaches practical strategies to deal with specific problem areas. Prerequisites: None.
CFS281
Adolescent School Success
1 credit 1 period lecture
*(Not offered every semester)*
An overview of factors that contribute to adolescent school success, including family-school interactions, special needs adolescents, and problem areas. Emphasis on strategies and resources to facilitate school success. **Prerequisites:** None.

CFS283
Multicultural Early Child Education
1 credit 1 period lecture
*(Not offered every semester)*
Practical early childhood classroom applications for a diverse ethnic population, including integration of multicultural into the classroom, facilitation of a second language acquisition, and practical teaching strategies which are also developmentally appropriate. **Prerequisites:** CFS/ECH176.

CFS290AA
Child Abuse: Identification & Reporting in Child Care Settings
1 credit 1 period lecture
*(Not offered every semester)*
Identification, recording, and reporting by child care providers of sexual abuse, physical abuse, or neglect of young children. **Prerequisites:** None.

ECH181
Enhancing Infant Development
1 credit 1 period lecture
Introduction to principles of development in infants from birth through 18 months. Emphasis on infant individuality and adult-infant interactions in practical care and play activities. **Prerequisites:** None.

ECH182
Enhancing Toddler Development
1 credit 1 period lecture
*(Not offered every semester)*
Overview of the developmental needs of children from 15 through 30 months. Emphasis on the adult role in providing a safe, stimulating everyday environment where toddlers may explore, imitate and communicate with others. **Prerequisites:** None.

ECH236
Learning Materials for Young Children
1 credit 1 period lecture
*(Not offered every semester)*
Design aspects of traditional early childhood play materials examined for teaching/learning potential. Includes design, production, and field-testing of teacher-made devices. **Prerequisites:** None.

ECH270
Observing Young Children
1 credit 1 period lecture
*(Not offered every semester)*
Introduction to techniques of observing young children. Recording methods, interpretation and use of collected information including legal and ethical implications. **Prerequisites:** None.

ECH271
Arranging the Environment
1 credit 1 period lecture
*(Not offered every semester)*
Exploration of the influence of the environment on the behavior of young children. Indoor and outdoor spaces considered and analysis of environments practiced. **Prerequisites:** None.

ECH274
Books and Verse For the Young Child
1 credit 1 period lecture
*(Not offered every semester)*
Introduction to verse, storytelling, books and bookmaking for infants, toddlers, and preschoolers. Information as well as storybooks considered. **Prerequisites:** None.

ECH275
Literacy Development & the Young Child
1 credit 1 period lecture
Literacy from birth through the early childhood years. Focus on developmentally appropriate ways to encourage speaking, listening, reading, and writing in the home and classroom. **Prerequisites:** None.

ECH276
Learning Materials for Young Children
1 credit 1 period lecture
*(Not offered every semester)*
Design aspects of traditional early childhood play materials examined for teaching/learning potential. Includes design, production, and field-testing of teacher-made devices. **Prerequisites:** None.

ECH277
Arranging the Environment
1 credit 1 period lecture
*(Not offered every semester)*
Exploration of the influence of the environment on the behavior of young children. Indoor and outdoor spaces considered and analysis of environments practiced. **Prerequisites:** None.

ECH278
Community Resources and Referral
1 credit 1 period lecture
*(Not offered every semester)*
Survey of current community agencies, resources, and support groups for a variety of child and family needs. Considers appropriate procedures for referral, handling of information, confidentiality and follow up. **Prerequisites:** None.

CHD – Chemical Dependency

CHD284
Current CD Issues Seminar
0.5 credit 0.5 period lecture
Special topics in chemical dependency with an emphasis on current issues not covered in other chemical dependency courses. May be repeated for a total of three (3) credit hours. **Prerequisites:** None.

CHD285
Chemical Dependency Seminar
1 credit 1 period lecture
Special topics in chemical dependency with an emphasis on current issues not covered in other chemical dependency courses. **Prerequisites:** None. **Course Note:** May be repeated for a total of four (4) credit hours.

CHI – Chinese

CHI115
Beginning Chinese Conversation I
3 credits 3 periods lecture
Introduction to Chinese sound system, basic grammar, and vocabulary necessary to develop speaking ability in Mandarin Chinese. Designed for students seeking speaking and listening ability with little emphasis on writing and reading Chinese characters. **Prerequisites:** None.
CHM – Chemistry

CHM090
Preparation for Fundamental Chemistry
1 credit 1 period lecture
A developmental course designed to review basic math and chemistry principles of students deficient or insecure in these areas. Stresses individualized instruction and hands-on experience. Serves to prepare the student for CHM130. Prerequisites: None.

CHM107/107LL
Chemistry and Society & Lab
4 credits 6 periods lecture & lab
LEC: A survey of chemistry and its impact on the environment. Completion of CHM107LL is required to meet the Natural Science requirement. Prerequisites: None. LAB: Laboratory experience in support of CHM107. Prerequisites or Corequisites: CHM107.

CHM130/130LL
Fundamental Chemistry & Lab
4 credits 6 periods lecture & lab
LEC: Elements of general chemistry for all students. Serves to prepare the student for CHM151 or CHM230. Prerequisites: Grade of "C" or better in CHM090, or MAT091, or MAT092, or MAT102, or satisfactory score on math placement exam. LAB: Laboratory experience in support of CHM130. Prerequisites or Corequisites: CHM130. Course Notes: Course content designed to meet the needs of students in such areas as agriculture, home economics, nursing, and physical education, among others.

CHM138/138LL
Chemistry For Allied Health & Lab
4 credits 6 periods lecture & lab
LEC: Elements of fundamental and organic chemistry. Includes the general chemical behavior of inorganic matter and the structure of organic and biochemical systems. This course is designed for specific allied health programs at MCCCD. It may not be applicable to other allied health programs or transferable. Prerequisites: Grade of "C" or better in CHM090; or one year of high school chemistry with a grade of "C" or better; or MAT092 or MAT102 or satisfactory score on placement exam. LAB: Laboratory experience in support of CHM138, Chemistry for Allied Health. Prerequisites: None. Corequisites: CHM138.

CHM151/151LL
General Chemistry I & Lab
4 credits 6 periods lecture & lab
LEC: A detailed study of the principles of chemistry. Designed for science majors and students in pre-professional curricula. Completion of CHM151LL required to meet the Natural Science requirement. Prerequisites: (CHM130 and CHM130LL) or one year high school chemistry with a grade of "C" or better, and completion of Intermediate Algebra or equivalent. LAB: Laboratory experience in support of CHM151. Prerequisites: CHM130LL or equivalent. Prerequisites or Corequisites: CHM151.

CHM152/152LL
General Chemistry II & Lab
4 credits 6 periods lecture & lab
LEC: A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, electrochemistry, and other selected topics. Prerequisites: CHM151 and CHM151LL. LAB: Laboratory experience in support of CHM152. Prerequisites: CHM151LL or equivalent. Prerequisites or Corequisites: CHM152.

CHM154/154LL
General Chemistry II with Qual & Lab
5 credits 9 periods lecture & lab
LEC: A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, kinetics, electrochemistry and other selected topics. Includes qualitative analysis. Prepares students for all sophomore chemistry courses. Completion of CHM154LL is required to meet the Natural Science requirement. Prerequisites: CHM151 and CHM151LL. LAB: Laboratory experience in support of CHM154. Includes qualitative analysis. Prerequisites: CHM151LL or equivalent. Prerequisites or Corequisites: CHM154.

CHM230/230LL
Fundamental Organic Chemistry & Lab
4 credits 6 periods lecture & lab
LEC: Chemistry of representative groups of organic compounds, emphasizing biological applications. Prerequisites: (CHM130 and CHM130LL), or (CHM151 and CHM151LL). LAB: Laboratory experience in support of CHM230. Prerequisites: CHM130LL, or CHM151LL, or equivalent. Prerequisites or Corequisites: CHM230. Course Notes: Course content designed to meet the needs of students in such areas as agriculture, home economics, nursing, pre-physician assistant, and physical education, among others.

CHM235/235LL
General Organic Chemistry I & Lab
4 credits 7 periods lecture & lab (Fall only)
LEC: Rigorous introduction to chemistry of carbon-containing compounds. Reaction mechanisms and recent methods of synthesis emphasized. Prerequisites: CHM152 and CHM152LL, or CHM154 and CHM154LL or equivalent. LAB: Laboratory experience in support of CHM235. Prerequisites: CHM152LL, or CHM154LL, or equivalent. Prerequisites or Corequisites: CHM235.

CHM236/236LL
General Organic Chemistry IIA & Lab
4 credits 7 periods lecture & lab (Spring only)
LEC: Study of chemistry of carbon-containing compounds continued. Structural determination and additional reaction mechanisms and modern methods of synthesis emphasized. Prerequisites: CHM235 and CHM235LL or equivalent. LAB: Laboratory experience in support of CHM236. Prerequisites: CHM235LL or equivalent. Prerequisites or Corequisites: CHM236.

For additional information on PC program competencies, visit:
http://www.dist.maricopa.edu/academic/curric/progpc.php

For additional information on MCCCD course competencies, visit:
http://www.dist.maricopa.edu/academic/curric/cs.php
CHM238/238LL
General Organic Chemistry IIB & Lab
5 credits 9 periods lecture & lab
(Spring only)
LEC: 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 or equivalent. LAB: Laboratory experience in support of CHM238. Prerequisites: CHM235LL or equivalent. Prerequisites or Corequisites: CHM238.

CHM298AA-AC
Special Projects
1-3 credits 1-3 periods lab
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment 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.

CIS – Computer Information Systems

CIS103
Using Help Desk Software
2 credits 3 periods lecture + lab
Help desk software applications for tracking calls, querying data, recording macros, and generating reports.
Prerequisites: CIS105 or permission of instructor.

CIS105
Survey of Computer Information Systems
3 credits 4 periods lecture + lab
Overview of computer technology, concepts, terminology, and the role of computers in society. Discussion of social and ethical issues related to computers. Use of word processing, spreadsheet, database, and presentation software. Includes programming and use of the Internet. Exploration of relevant emerging technologies.
Prerequisites: None.

CIS/BPC114AE
Excel: Level I
1 credit 2 periods lecture + lab
Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting and projections.
Prerequisites: None.

CIS/BPC114BE
Excel: Level II
1 credit 2 periods lecture + lab
Additional Excel spreadsheet techniques, including macro programming, database searching, extraction, and linking to obtain prescribed reports and graphs.
Prerequisites: CIS/BPC114AE or permission of instructor.

CIS/BPC114CE
Excel: Level III
1 credit 1 period lecture + lab
Additional Excel spreadsheet techniques, including complex macros, statistics, and matrix manipulation. Project design using multiple, integrated spreadsheets.
Prerequisites: CIS/BPC114BE or permission of instructor.

CIS/BPC114DE
Excel Spreadsheet
3 credits 5 periods lecture + lab
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.

CIS/BPC117AM
Database Management: Microsoft Access – Level I
1 credit 2 periods lecture + lab
Introduction to the basic elements of a current version of the Microsoft Access database management program, for casual and beginning users.
Prerequisites: None.

CIS/BPC117BM
Database Management: Microsoft Access – Level II
1 credit 2 periods lecture + lab
Exploration of additional components of the Microsoft Access database management program.
Prerequisites: BPC117AM or CIS117AM or permission of instructor.

CIS/BPC117CM
Database Management: Microsoft Access – Level III
1 credit 1 period lecture + lab
Application of the features of the Microsoft Access program to some common database management problems.
Prerequisites: BPC117BM or CIS117BM.

CIS/BPC117DM
Microsoft Access: Database Management
3 credits 5 periods lecture + lab
Introduction to the basic elements, exploration of additional components and common database management problems related to the Microsoft Access program. Combines the contents of BPC/CIS117AA and BPC/CIS117BA and BPC/CIS117CA.
Prerequisites: None.

CIS/BPC118AB
PowerPoint: Level I
1 credit 2 periods lecture + lab
Use of PowerPoint software to produce professional-quality presentation visuals.
Prerequisites: None.

CIS/BPC120AF
Computer Graphics: Adobe Photoshop: Level I
1 credit 2 periods lecture + lab
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.
CIS/BPC120BF
Computer Graphics: Adobe Photoshop: Level II
1 credit 1 period lecture + lab
Provides students with the capability to use Adobe Photoshop graphics software on a computer. Includes working with masks, channels and layers, and combining raster and vector graphics. Prerequisites: BPC/CIS120AF.

CIS/BPC120CF
Computer Graphics: Adobe Photoshop: Level III
1 credit 1 period lecture + lab
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: None.

CIS/BPC120DC
Computer Graphics: Macromedia Flash
3 credits 4 periods lecture + lab
Provides students with the ability to use Macromedia Flash graphics software on microcomputers. Covers basic animation techniques used in the creation, manipulation, and editing of Flash animation graphics. Prerequisites: None.

CIS/BPC120DF
Computer Graphics: Adobe Photoshop
3 credits 4 periods lecture + lab
Provides students with the capability to use Adobe Photoshop graphics software on a computer. Basic foundation course in the use of electronic techniques to select, manipulate, and edit images, work with masks, channels and layers; combine raster and vector graphics; print in color, manage color, and create graphics for the web. Prerequisites: None.

CIS/BPC121AB
MS-DOS Operating System
1 credit 2 periods lecture + lab
The use of the MS-DOS operating system: basic concepts, internal and external commands, subdirectories, and editor. Prerequisites: None.

CIS/BPC121AE
Windows Operating System: Level I
1 credit 2 periods lecture + lab
Specific topics include booting and shutting down the computer, navigating the desktop, start button features, taskbar status, and receiving on-line help support. Exploring and managing folders and files, running programs, and learning about Wordpad and Paint application programs. Prerequisites: None.

CIS/BPC121AG
Windows 98 - Level I
1 credit 2 periods lecture + lab
Specific topics include booting and shutting down the computer, navigating the desktop, start button features, taskbar status, and receiving on-line help support. Exploring and managing folders and files, running programs, and learning about Wordpad and Paint application programs. Prerequisites: None.

CIS/BPC122AE
Windows Operating System: Level II
1 credit 2 periods lecture + lab
Additional capabilities of the Windows '95 program that configure devices and customize the presentation of the operating system. System tools, control panel utilities, the My Computer, Network Neighborhood, and Microsoft Exchange desktop icons. Other helpful utilities presented. Prerequisites: CIS/BPC121AE or permission of instructor.

CIS/BPC122AG
Windows 98 - Level II
1 credit 2 periods lecture + lab
Microsoft (MS) Windows 98 network software package. Covers enhanced features, user interface enhancements, maintenance and troubleshooting tools. Configuration emphasized. Prerequisites: BPC/CIS121AG or CIS121AG.

CIS121AA
Project Management Software: Level I
1 credit 1.7 periods lecture + lab
Utilization of Project Management software packages by managers and advanced business students to solve critical management planning tasks. Evaluation of management opportunities utilizing software packages to monitor project progress and resource allocation. Includes "what-if" analysis, and preparation of management reports. Prerequisites: Permission of instructor or department.

CIS121BA
Project Management Software: Level II
1 credit 1.7 periods lecture + lab
Advanced use of project management software. Covers features and functions to solve critical management planning tasks. Project communications, scheduling, resource allocation, tracking processes and importing and exporting data also covered. Project consolidation emphasized. Prerequisites: CIS121AA or permission of instructor.

CIS126AA
UNIX Operating System: Level I
1 credit 2 periods lecture + lab
Use of the UNIX operating system: system components, built-in commands, files and directories, editors, and UNIX shell and command lines. Prerequisites: None.

CIS126DA
UNIX Operating System
3 credits 4 periods lecture + lab
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.

CIS/BPC133AA
Internet/Web Development Level I-A
1 credit 2 periods lecture + lab
Overview of the Internet and its resources. Hands-on experience with various Internet communication tools. Prerequisites: None.

CIS/BPC133BA
Internet/Web Development Level I-B
1 credit 1 period lecture + lab
Exploration of additional Internet resources. Hands-on experience with a variety of resource discovery and information retrieval tools as well as enhancement of Web pages. Prerequisites: BPC/CIS133AA.

CIS/BPC133CA
Internet/Web Development Level I-C
1 credit 1 period lecture + lab
Web site development using the enhancement codes. Includes frames, style sheets and javascript as well as design principles and typography. Prerequisites: BPC/CIS133BA or permission of instructor.

CIS/BPC133DA
Internet/Web Development Level I
3 credits 4 periods lecture + lab
Overview of the Internet and its resources. Hands-on experience with various Internet communication, resource discovery and information retrieval tools. Prerequisites: None.
CIS150
Programming Fundamentals
3 credits 4 periods lecture + lab
Structured program design and logic tools. Use of computer problems to demonstrate and teach concepts using appropriate programming language. Prerequisites: CIS105, or permission of instructor.

CIS159
Visual Basic Programming I
3 credits 4 periods lecture + lab
Use of the Visual Basic programming language to solve problems using suitable examples from business or other disciplines. Prerequisites: CIS105, or permission of instructor.

CIS162AA
C: Level I
3 credits 4 periods lecture + lab
Beginning C programming. Includes features needed to construct programs, functions, pointers, input and output options, data types, structures, and unions, and disk file operations. Prerequisites: CIS105, or permission of instructor.

CIS162AB
C++: Level I
3 credits 4 periods lecture + lab
Introduction to C++ programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: CIS105, or permission of instructor.

CIS162AC
Visual C++: Level I
3 credits 4 periods lecture + lab
Beginning C programming. Includes features needed to construct programs, functions, pointers, input and output options, data types, structures, and unions, and disk file operations. Prerequisites: CIS105, or permission of instructor.

CIS162AD
C#: Level I
3 credits 4 periods lecture + lab
Introduction to C# programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: CIS105, or permission of instructor.

CIS163AA
Java Programming: Level I
3 credits 4 periods lecture + lab
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.

CIS163AB
Java Programming for the AS/400
3 credits 4 periods lecture + lab
Introduction to VisualAge for Java and Borland’s JBuilder. Writing applications and building graphical user interfaces for applications, using VisualAge programming paradigm. Prerequisites: (CIS105 and CIS122AB), or permission of instructor.

CIS166
Web Scripting/Programming
3 credits 4 periods lecture + lab
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.

CIS169
Introduction to Visual Basic for Applications
3 credits 4 periods lecture + lab
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.

CIS183AA
Microsoft Works
3 credits 4 periods lecture + lab
Utilization of the Microsoft Works integrated software program. Utilizing electronic spreadsheet, word processing, data base, telecommunication, and graphics components to solve business problems. Prerequisites: None.

CIS190
Introduction to Local Area Networks
3 credits 4 periods lecture + lab
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. Include terminology, hardware and software components, connectivity, resource monitoring and sharing, electronic mail and messaging, and security issues. Prerequisites: CIS105, or permission of instructor.

CIS/BPC224
Project Management Microsoft Project for Windows
3 credits 4 periods lecture + lab
Introduction to project management concepts while working with MS Project to solve complex project management networks, including creating Gantt and PERT charts, tracking project progress, planning for restrictions, and integrating MS Project with other software packages such as Excel, Word, Powerpoint, and cc Mail. Prerequisites: None.

CIS225
Business Systems Analysis and Design
3 credits 3 periods lecture
Investigation, analysis, design, implementation and evaluation of business computer systems. Prerequisites: Any programming language or permission of instructor.

CIS225AB
Object-Oriented Analysis and Design
3 credits 3 periods lecture
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 programming language, or permission of instructor.
CIS234
XML Application Development
3 credits 4 periods lecture + lab
The use of Extensible Markup Language (XML) to make documents smarter, simplify Web automation, and to communicate between databases, both within and between corporations. Includes techniques for XML generation, data extraction and sharing, and transformation and managing of XML files. Prerequisites: (CIS133CA or CIS133DA) and (CIS190 or MST140) or permission of the instructor.

CIS235
e-Commerce
3 credits 4 periods lecture + lab
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.

CIS236
Web-Based Teaching and Learning I
2 credits 3 periods lecture + lab
Experience using a web-based learning environment from an online student's perspective. Use communication tools, submit assignments, use evaluation tools, create homepages, and navigate online-learning environment. Introduction to basics of online pedagogy. Hands-on experience with a web-based learning environment. Prerequisites: CIS133CA or CIS133DA, or permission of instructor.

CIS237
Web-Based Teaching and Learning II
2 credits 3 periods lecture + lab
Create an online or hybrid course using a web-based learning environment. Create, prepare, and manage content and resource files; locate and add resources; and manage a course homepage. Add, delete, and revise tools; create, maintain, and release quizzes and assignments; and manage a course. Track students, data, and revise student grades, submissions, and attendance. Hands-on experience with creating a course using a web-based learning environment. Prerequisites: CIS236, or permission of instructor.

CIS240
Local Area Network Planning & Design
3 credits 3 periods lecture
Analysis of the needs and requirements for a local area network. Emphasis on basic systems analysis and design for a local area network, selection of appropriate hardware and software components. Concepts to be covered include current and future issues, needs analysis, cost estimation, selection of connectivity and network components, and issues relating to access, security, and support. Prerequisites: CIS190 or permission of instructor.

CIS259
Visual Basic Programming II
3 credits 4 periods lecture
Use of the Visual Basic programming language to identify and solve advanced problems using suitable examples from business or other disciplines. Prerequisites: CIS159 or permission of instructor.

CIS262
C Programming II
3 credits 4 periods lecture + lab
Advanced level C programming. Programming with emphasis on data management, dynamic allocation, varied memory models, interfacing with the operating system, efficiency, and advanced debugging techniques. Prerequisites: CIS162 or permission of instructor.

CIS262AA
C: Level II
3 credits 4 periods lecture + lab
Advanced level C programming. Programming with emphasis on data management, dynamic allocation, varied memory models, interfacing with the operating system, efficiency, and advanced debugging techniques. Prerequisites: CIS162AA, or permission of instructor.

CIS262AB
C++: Level II
3 credits 4 periods lecture + lab
Advanced level C++ programming with emphasis on arrays, data management, dynamic memory allocation, object-oriented programming concepts, input/output operations, libraries, and debugging techniques. Includes overview of other advanced applications of C++. Prerequisites: Permission of instructor.

CIS262AC
Visual C++: Level II
3 credits 4 periods lecture + lab
Advanced-level C programming. Programming with emphasis on data management, dynamic allocation, varied memory models, interfacing with the operating system, efficiency, and advanced debugging techniques. Prerequisites: CIS162AC, or permission of instructor.

CIS263AA
Java Programming: Level II
3 credits 4 periods lecture + lab
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.

CIS290AA, AB, & AC
Computer Information Systems Internship
1, 2, & 3 credits 6, 12, & 18 periods lab
Work experience in business or industry. Prerequisites: Permission of instructor.

CIS298AA, AB, & AC
Special Projects
1, 2, & 3 credits 1, 2, & 3 periods lab
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment 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.

CNT – Cisco Networking Technology

CNT140
Cisco Networking Basics
4 credits 6 periods lecture + lab
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.
CU150
Cisco Networking Router Technologies
3 credits 4 periods lecture + lab
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.

CU160
Cisco Switching Basics and Intermediate Routing
3 credits 4 periods lecture + lab
Advanced Internet Protocol (IP) addressing techniques, Variable Length Subnet Masking (VLSM), Intermediate routing protocols, Routing Internet Protocol version 2 (RIPv2), Single-area Open Shortest Path First (OSPF), and Enhanced Interior Gateway Routing Protocol (EIGRP), Command Line Interface configuration of switches, Ethernet switching, Virtual Local Area Networks (VLANS), Spanning Tree Protocol (STP) and Virtual local-area Network Trunking Protocol (VTP). Preparation for Cisco Certified Network Associate certification examination. Prerequisites: CNT130 or permission of instructor.

CU170
Cisco Wide Area Networks (WAN) Technologies
3 credits 4 periods lecture + lab
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.

COM - Communication

COM100
Intro to Human Communication
3 credits 3 periods lecture
Theory and practice of communication skills in public, small group, and interpersonal settings. Includes study of the speech communication process. Prerequisites: None.

COM110
Interpersonal Communication
3 credits 3 periods lecture
Theory and practice of communication skills which affect day-to-day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships. Prerequisites: None.

COM120
Pronunciation of American Speech
3 credits 3 periods lecture
Analysis of American speech production problems due to accents produced by another language, correction of misarticulated American speech sounds, critical listening to sound production, understanding American English speech patterns, practicing American idioms and expressions, and preparing and delivering group and individual speech presentations. Prerequisites: None.

COM207
Introduction to Communication Inquiry
3 credits 3 periods lecture
Overview of theory and methodological practice in communication with particular attention to scholarly writing skills. Emphasis on development of critical thinking skills through active participation in the research process. Prerequisites: ENG101 or ENG107 or equivalent, and COM100 or equivalent, or permission of instructor. Course Note: Recommended for the communication major.

COM110
Argumentation
3 credits 3 periods lecture
Discussion and practice of the use of evidence, applied reasoning, recognition of fallacies, selection of arguments, and methods of analyzing issues. Prerequisites: ENG101 or ENG107 or equivalent.

COM225
Public Speaking
3 credits 3 periods lecture
Designed to improve one's self-confidence and self-concept through improving communication skills used in public speaking. To enhance each student's ability to present his/her ideas in an organized time constrained format. To improve critical thinking skills and enhance student's ability to express himself or herself objectively, subjectively, and creatively. Prerequisites: ENG101 or ENG107 or equivalent. NOTE: Course changes not available at time of printing. Consult with Academic Advisement.

COM230
Small Group Communication
3 credits 3 periods lecture
Principles and processes of small groups and development of skills for participation and leadership in small group settings. Practice in problem solving, decision making, and information sharing. Prerequisites: ENG101, or ENG107, or equivalent.

COM/THP241
Performance of Literature
3 credits 3 periods lecture
The study, analysis, and preparation for performance of prose, poetry, and dramatic literature. Preparation of material for public audiences. Prerequisites: ENG101 or ENG107 or equivalent.

COM259
Communication in Business & Professions
3 credits 3 periods lecture
Interpersonal, group, and public communication in business and professional organizations. Emphasis on oral communication. Prerequisites: ENG101 or ENG107 or equivalent.

COM263
Elements of Intercultural Communication
3 credits 3 periods lecture
Basic concepts, principles, and skills for improving oral communication between persons from different minority, racial, ethnic, and cultural backgrounds. Prerequisites: None.
COM/THP271  
Voice and Diction  
3 credits 3 periods lecture  
Exercises and techniques to free the voice and improve projection, resonance, and articulation. Covers international phonetic alphabet and standard stage speech. **Prerequisites:** None.

COM281  
Communication Activities  
1 credit 3 periods lecture + lab  
Designed to provide students with competence and confidence in a variety of speech situations beyond the classroom setting. May include presentations to service organizations and/or competition at other colleges and universities. **Prerequisites:** None.

COM298AA-AC  
Special Projects  
1-3 credits 1-3 periods lab  
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional type facilities and equipment 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.

**CPD – Counseling & Personal Development**

**CPD100**  
Orientation for Student Development  
1 credit 1 period lecture  
Offered to orient new students to college life. Emphasis on assessing students’ academic potential, facilitating curricular advisement and registration procedures, learning academic survival skills, and becoming aware of all services available to students on campus and in the community. **Prerequisites:** None.

**CPD101**  
Personal Development  
2 credits 2 periods lecture  
Designed to assist students in developing confidence in making personal, social, and educational decisions. Examination and assessment of individual needs, interests, abilities, and values to develop and strengthen interpersonal communication, enhance transitional skills, and identify realistic life planning goals. **Prerequisites:** None.

**CPD102 Counseling Topics**  
Counseling courses offered as special topics for students. Emphasis on skill development in areas of personal concern.

**CPD102AA**  
Assertiveness Training  
2 credits 2 periods lecture  
Designed to help students differentiate assertive, non-assertive and aggressive behavior, overcome blocks to acting assertively, establish boundaries, and develop effective verbal and nonverbal assertive behavior. Group discussion, role playing, and videotape feedback are used to enable students to express feelings, beliefs, and opinions in a direct, appropriate manner. **Prerequisites:** None.

**CPD102AB**  
Career Exploration  
2 credits 2 periods lecture  
Designed to assist students making career choices. Focuses on self-assessment in terms of educational and career opportunities and reasonable possibilities in the world of work. Includes assessment for personal/career interests, values, needs, attitudes, skills, and other potential, and exploration of occupational information to establish career and educational goals. **Prerequisites:** None.

**CPD102AD**  
Eliminating Self-Defeating Behavior  
2 credits 2 periods lecture  
Designed to help students change behaviors that work against their potential, i.e., inferior feelings, shyness, nervousness, stage fright, underachievement, etc. Focus on identifying undesirable thoughts, emotions and behaviors, for the purpose of developing alternative, and more desirable thoughts, emotions, and behaviors. **Prerequisites:** None.

**CPD102AE**  
Exploration of Values  
2 credits 2 periods lecture  
Designed to explore values as guidelines to directions taken in life. Emphasis on value definition and personal value clarification. Includes strategies for implementing knowledge of personal values in various life roles. **Prerequisites:** None.

**CPD102AH**  
Stress Management  
2 credits 2 periods lecture  
Reviews the sources of stress, the physiological effects and the psychological impact of stress on the individual. Provides strategies to reduce stress. **Prerequisites:** None.

**CPD102AN**  
Anger Management  
2 credits 2 periods lecture  
Provides an understanding of the emotion of anger, explores the types, origins and typical reactions to anger. Covers stress and the need for stress management in relation to anger. Examines personal anger patterns and feelings, and the use of effective interpersonal communications in effective anger management. **Prerequisites:** None.

**CPD102AR**  
Relaxation Training  
1 credit 1 period lecture  
Emphasis on specific relaxation techniques to alleviate dysfunctional tension. Use of progressive relaxation methods to reduce stress. Discussion of other modalities of relaxation. **Prerequisites:** Permission of instructor.

**CPD102AS**  
Conflict Resolution  
2 credits 2 periods lecture  
Developing new skills for dealing effectively with everyday conflict and improving quality of one’s own life. Opportunity to discuss issues and seek cooperative resolutions. **Prerequisites:** None.

**CPD102AT**  
Building Self-Esteem  
2 credits 2 periods lecture  
Practice in specific methods for building and keeping self-esteem. Personal assessment of attitudes, values, support systems, and goals. **Prerequisites:** None.
– CPD103 Counseling Groups –
Counseling courses offered to meet the needs of special groups of students. Emphasis on self-assessment to increase students’ confidence and potential.

CPD103BA
Women in Transition
2 credits 2 periods lecture
Designed to assist and support women who are experiencing life transitions. Emphasis on assessing self-potential, increasing self-confidence, managing life change, and exploring educational/career/life options in terms of the realities of roles for women today. 
Prerequisites: None.

CPD103BC
African American Cultural Pride and Awareness
2 credits 2 periods lecture
Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions. 
Prerequisites: None.

CPD103BD
Latino/Hispanic American Pride and Awareness
2 credits 2 periods lecture
Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions.
Prerequisites: None.

CPD103BE
Native American Cultural Pride and Awareness
2 credits 2 periods lecture
Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions.
Prerequisites: None.

CPD103BH
Male-Female Communication
2 credits 2 periods lecture
Designed to provide students with a better understanding of male-female characteristics and how that along with a renewed emphasis on basic communication skills will improve communication between the sexes. 
Prerequisites: None.

CPD103BJ
Dynamic Parenting
2 credits 2 periods lecture
Designed to provide students with an understanding of parenting dynamics and effective communication between parents and children. Emphasis on building self-esteem, developing coping skills, behavior modification, and other techniques for improving parenting and communication in a variety of circumstances. 
Prerequisites: None.

CPD103BK
Single Again
2 credits 2 periods lecture
Designed to provide those who have experienced breakup, separation, divorce, or widower/widowhood, lifestyle, an opportunity to examine their position in life and develop skills and confidence necessary to proceed, temporarily or indefinitely, as a single person. 
Prerequisites: None.

CPD103BL
Dynamics of Leadership
2 credits 2 periods lecture
Designed to provide strategies that may be used when assuming leadership roles. Focus on improving supervisory confidence through the development of appropriate competitive behaviors, problem-solving skills, and techniques of leadership. 
Prerequisites: None.

CPD104
Career and Personal Development
3 credits 3 periods lecture
An overview of the process of career/life planning through self-awareness and understanding. Focus on specific skill development such as dealing with change, decision making, goal setting and understanding lifestyles. Provides opportunity to evaluate interests, skills and values. Emphasis on the development of a comprehensive career search process which includes current occupational information, specific tools for researching the job market and acquiring employment. 
Prerequisites: None.

CPD/GBS126
Writing Resumes
1 credit 1.7 periods lecture + lab
Planning, organizing, and writing a professional resume. Focus on presentation skills including format and language. 
Prerequisites: None.

CPD/AAA150
Strategies for College Success
3 credits 3 periods lecture
Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning. 
Prerequisites: None.

CPD160
Introduction to Multiculturalism
3 credits 3 periods lecture
Examination of the multiple cultures and subcultures within the contemporary United States. Personal exploration of awareness and appreciation of multiculturalism. Activities for experiencing diverse cultural perspectives. Skills for recognizing, analyzing, and mediating cultural and psychological factors impacting conflict and accord between diverse cultures. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. 
Prerequisites: None.

CRE – Critical Reading

Please Note: For additional Reading courses, see RDG, starting on page 313.

CRE101
Critical and Evaluative Reading I
3 credits 3 periods lecture
Emphasis on applying critical inquiry skills to varied and challenging reading materials. Includes analysis, synthesis, and evaluation through written discourse. 
Prerequisites: ENG101 and [reading placement test score of 41 or higher (ASSET), or grade of “C” or better in RDG091, or permission of instructor.]
CRW120  Introduction to Writing Children’s Literature
3 credits 3 periods lecture
Overview of writing children’s literature. Emphasis on genres and standards for quality. Development of techniques in reading, evaluating, writing, revising, and editing literature written for children. Prerequisites: None. CRW150 suggested but not required.

CRW150  Introduction to Creative Writing
3 credits 3 periods lecture
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.

CRW155  Bilingual Creative Writing
3 credits 3 periods lecture
Introduction to bilingual creative writing. Examines the elements of writing bilingual literature, including authorial voice and aesthetic, and the role of culture, ethnicity, and dialect. Writing, analysis, evaluation, and revision of creative writing generated from a bilingual/bicultural perspective. Prerequisites: None.

CRW160  Introduction to Writing Poetry
3 credits 3 periods lecture
Prewriting (invention and discovery); writing; analyzing and evaluating (in workshop); and revising to practice manipulating various elements of poetry, critique one’s own and the poetry of others, and produce a portfolio of finished, marketable poems. Prerequisites: None. CRW150 recommended but not required.

CRW170  Introduction to Writing Fiction
3 credits 3 periods lecture
Practice in writing fiction through a process of prewriting (invention and discovery), writing, analysis and evaluation (in workshop), and revision; practice in manipulating various elements and forms of fiction; production of marketable quality short fiction. Prerequisites: None. CRW150 recommended but not required.

CRW180  Introduction to Writing Nonfiction
3 credits 3 periods lecture
Practice in writing creative nonfiction, including autobiography and biography, the essay, reviews, and humor using a process of invention and discovery, writing, analysis, evaluation, and revision. Combines lecture, discussion, and workshop, leading to the production of marketable quality creative nonfiction. Prerequisites: None. CRW150 recommended but not required.

CRW190  Introduction to Screenwriting
3 credits 3 periods lecture
Overview of screenwriting elements; introduction to screenwriting techniques. Prerequisites: None. CRW150 recommended but not required.

CRW200  Readings for Writers
1 credit 1 period lab
Analysis and evaluation of selected readings to raise an individual’s level of writing using print and online reference materials and resources; selection of important texts and research techniques to compose and annotate a reading list in areas of interest. May be repeated for a total of six (6) credits. Prerequisites: CRW150, or permission of instructor.

CRW201  Portfolio
1 credit 1 period lab
Methods for selecting work and compiling a portfolio of creative writing. Prerequisites: Acceptance to the Creative Writing program, completion of nine (9) credit hours of CRW course work, or permission of program director.

CRW202  The Writer As Witness
3 credits 3 periods lecture
Studio course focusing on writing with the writer as witness of the world: prewriting, writing, analysis, evaluation, and writing of monologue and dialogue in various formats. Prerequisites: CRW150, or permission of instructor.

CRW203  Dialogue
3 credits 3 periods lecture
Studio course focusing on writing dialogue in a variety of genres; prewriting, writing, analysis, evaluation, and revision of monologue and dialogue in various formats. Prerequisites: CRW150 or permission of instructor.

CRW204  Journaling
3 credits 3 periods lecture
Studio course focusing on journal writing. Prerequisites: CRW150 or permission of instructor.

CRW220  Intermediate Writing Children’s Literature
3 credits 3 periods lecture
Application of techniques in writing literature for children. Emphasis on independent writing, self-evaluation, and revision. Includes completion of a major writing project of marketable quality. Prerequisites: CRW120, or permission of instructor.

CRW240AC  Writing Studio Workshop I: The Short Story
1 credit 1 period lecture
Studio course focusing on the short short story; prewriting, writing, analysis, evaluation, and revision of writing in that genre. Prerequisites: None.

CRW240AD  Writing Studio Workshop I: Short Fiction Revision
1 credit 1 period lecture
Workshop exploring revision techniques for short fiction. Prerequisites: None.

CRW240AE  Writing Studio Workshop I: The Prose Poem
1 credit 1 period lecture
Studio course focusing on writing the prose poem; prewriting, writing, analysis, evaluation, and revision of prose poetry. Prerequisites: None.

CRW240AF  Writing Studio Workshop I: Dramatic Monologue
1 credit 1 period lecture
Studio course focusing on the dramatic monologue; prewriting, writing, analysis, evaluation, and revision of dramatic monologue in a variety of genres. Prerequisites: None.
Course Descriptions

CRW240AG
Writing Studio Workshop I: Poetry Revision
1 credit 1 period lecture
Revision techniques for poetry.
Prerequisites: None.

CRW242AA
Writing Studio Workshop I: Memoir
2 credits 2 periods lecture
Studio course focusing on memoir writing; prewriting, writing, analysis, evaluation, and revision of memoir writing, primarily in nonfiction.
Prerequisites: None.

CRW242AB
Writing Studio Workshop I: Discovering Voice in Poetry
2 credits 2 periods lecture
Studio course focusing on discovering voice in poetry; prewriting, writing, analysis, evaluation, and revision of poetry in a variety of forms.
Prerequisites: None.

CRW242AD
Writing Studio Workshop I: Magical Realism
2 credits 2 periods lecture
Studio course focusing on using magical realism in writing. Pre-writing, writing, analysis, evaluation, and revision of magical realism, primarily in fiction.
Prerequisites: None.

CRW242AF
Writing Studio Workshop I: Poetic Forms
3 credits 3 periods lecture
Studio course focusing on writing poetic forms; pre-writing, writing in forms, analysis, scansion, evaluation, research, and revision of poetry in a variety of forms.
Prerequisites: None.

CRW242AG
Writing Studio Workshop I: Dream Writing
2 credits 2 periods lecture
Studio course focusing on writing using dreams and dream imagery; pre-writing, writing, analysis, evaluation, and revision of writing in several genres.
Prerequisites: None.

CRW242AH
Writing Studio Workshop I: Musical Elements of Poetry
3 credits 3 periods lecture
Studio course focusing on the musical elements of poetry, including sounds and rhythms, rhyme, traditional rhetorical devices, line and stanza; examines relationship between the written and spoken poem; pre-writing, writing, analysis, evaluation, and revision of poetry.
Prerequisites: None.

CRW242AJ
Writing Studio Workshop I: Cultural Viewpoints
2 credits 2 periods lecture
Studio course focusing on the influence of culture and ethnicity on the writer, including factors such as age, gender, race, region, class, and sexual preference. Pre-writing, writing, analysis, evaluation, and revision of creative writing generated from an exploration of culture.
Prerequisites: HUM120 or permission of instructor.

CRW242AK
Writing Studio Workshop I: The Urban Experience
2 credits 2 periods lecture
Studio course focusing on the urban experience as subject, symbol, and influence in creative writing. Pre-writing, writing, analysis, evaluation, and revision of creative writing generated from an exploration of the urban experience.
Prerequisites: HUM125 or permission of instructor.

CRW250AA
Writing Studio Workshop II: Exploring Obsession
1 credit 1 period lecture
Intermediate level, multi-genre creative writing, exploring obsessions as a tool for discovery and invention.
Prerequisites: None.

CRW250AC
Writing Studio Workshop II: Journeys and Excursions
1 credit 1 period lecture
Studio course focusing on creating and writing through the use of journeys, real and imagined; pre-writing, writing, analysis, evaluation, and revision of writing in several genres.
Prerequisites: Acceptance to the Creative Writing program or permission of the program director.

CRW252AA
Studio Workshop II: Unreliable Narrator Fiction
2 credits 2 periods lecture
Intermediate writing workshop exploring uses and types of the unreliable narrator in fiction.
Prerequisites: Acceptance to the Creative Writing program or permission of the program director.

CRW252AB
Writing Studio Workshop II: Point of View
3 credits 3 periods lecture
Studio course focusing on point of view; pre-writing, writing, analysis, evaluation, and revision; experimentation with using different points of view; students may work in any genre.
Prerequisites: Acceptance to the Creative Writing program or permission of the program director.

CRW252AC
Writing Studio Workshop II: Writing Revisionist Myths
2 credits 2 periods lecture
Studio course focusing on writing revisionist myths; pre-writing, writing, analysis, evaluation, and revision of writing in several genres.
Prerequisites: Acceptance to the Creative Writing program or permission of the program director.

CRW252AD
Writing Studio Workshop II: Creating the Multiple Self in Writing
2 credits 2 periods lecture
Studio course focusing on creating and writing through the use of the multiple self; pre-writing, writing, analysis, evaluation, and revision of writing in several genres.
Prerequisites: Acceptance to the Creative Writing program or permission of the program director.

CRW261
Topics in Writing: Poetry
3 credits 3 periods lecture
Analysis, writing, and revision of genre or element within poetry.
Prerequisites: CRW150 or permission of instructor.

CRW270
Intermediate Fiction Writing
3 credits 3 periods lecture
Writing a series of original short stories; analysis of established works of fiction; concentration on revising students’ fiction through intensive workshopping.
Prerequisites: CRW170 or permission of instructor.
CRW271
Topics in Writing: Fiction
3 credits 3 periods lecture
Analysis, writing, and revision of genre or element within fiction. **Prerequisites:** CRW150 or permission of instructor.

CRW272
Planning and Structuring the Novel
3 credits 3 periods lecture
Focus on planning, structuring, and beginning a novel; prewriting, writing, analysis, evaluation, and revision of novel plans and excerpts. **Prerequisites:** CRW150 or permission of instructor.

CRW273
Writing the Novel
3 credits 3 periods lecture
Provides the beginning novelist with structure, support, and guidance vital to sustained writing; focus on establishing goals and using critique sessions with instructor and peers to draft a novel; open- and topic-focused in-class forums, novel writing, peer and instructor critiques. **Prerequisites:** CRW272 or permission of instructor.

CRW274
Revising the Novel
3 credits 3 periods lecture
Studio course workshop format. Requires a complete novel finished, in manuscript, ready for revision and polishing. **Prerequisites:** CRW273 or permission of instructor.

CRW275
Writing the Mystery Story
3 credits 3 periods lecture
Introduces the student to the elements and techniques of writing the mystery story; reinforces terminology and concepts for successful participation in writing workshops; facilitates writing practice, evaluation, and revision in the writing of the mystery story; offers individual guidance on the student’s development as a writer. **Prerequisites:** CRW150, or permission of instructor.

CRW281
Topics in Writing: Non-Fiction
3 credits 3 periods lecture
Analysis, writing, and revision of genre or element within non-fiction. **Prerequisites:** CRW150 or permission of instructor.

CRW290
Intermediate Screenwriting
3 credits 3 periods lecture
Drafting and revision of original screenplay; overview of marketing a screenplay. **Prerequisites:** CRW190 or permission of instructor.

CRW291
Topics in Writing: Plays
3 credits 3 periods lecture
Analysis, writing, and revision of genre or element within plays and/or motion picture screenplays. **Prerequisites:** CRW150 or permission of instructor.

CWE – Career Work Experience

CWE 198AA
Career/Work Experience
1 credit 1 period lecture & lab
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.

DAE – Dental Assisting Education

DAE101
Preclinical Dental Assisting
2 credits 2 periods lecture
Preclinical procedures in dentistry. Dental equipment operation and maintenance, infection control, sterilization, hazard control procedures, and four-handed concepts during clinical procedures. **Prerequisites:** Admission to the Dental Assisting Program or permission of instructor. **Corequisites:** DAE102, DAE104, DAE106, DAE107, DAE/DHE114, DAE/DHE122, DAE/DHE203, DAE/DHE204, or permission of instructor.

DAE102
Preclinical Dental Assisting Laboratory
1 credit 3 periods lecture + lab
Practice of preclinical procedures including dental equipment operation and maintenance, infection and hazard control procedures, and four-handed dentistry concepts. **Prerequisites:** Admission to the Dental Assisting Program or permission of instructor. **Corequisites:** DAE101, DAE104, DAE106, DAE107, DAE/DHE114, DAE122, DAE/DHE203, DAE/DHE204, or permission of instructor.

DAE104
Preventive Dentistry
2 credits 2 periods lecture
Educational and therapeutic techniques necessary for instructing diverse patients, nutritional counseling, fluorides, preventive dental procedures, development of individual programs, and techniques of patient motivation. **Prerequisites:** Admission to the Dental Assisting Program or permission of the instructor. **Corequisites:** DAE101, DAE102, DAE106, DAE107, DAE/DHE114, DAE/DHE122, DAE/DHE203, DAE/DHE204, or permission of instructor.

DAE106
Clinical Dental Assisting
4 credits 4 periods lecture
Dental Assisting profession’s history, roles of the dental team members, ethical and legal standards. Operatory and patient preparation, assisting with General Dentistry and specialty procedures. Application of current concepts in Clinical Assisting. **Prerequisites:** Admission to the Dental Assisting Program or permission of instructor. **Corequisites:** DAE101, DAE102, DAE104, DAE107, DAE/DHE114, DAE/DHE122, DAE/DHE203, DAE/DHE204, or permission of instructor.

DAE107
Clinical Dental Assisting Laboratory
2 credits 6 periods lab
Introduction to specialty dental practices. Clinical assisting with diagnosis, preparation to patient, and specialty procedures. **Prerequisites:** Admission to the Dental Assisting Program or permission of instructor. **Corequisites:** DAE101, DAE102, DAE104, DAE106, DAE/DHE114, DAE/DHE122, DAE/DHE203, DAE/DHE204, or permission of instructor.
DAE/DHE114
Emergency Medicine
2 credits 2 periods lecture
Introduction to recording and interpreting medical history. Additional topics include: recognition of signs and symptoms of medical emergencies, procedures and techniques introduced to prevent emergencies and management of emergency situations in the dental environment. **Prerequisites:** Admission to the Dental Hygiene or Dental Assisting Programs.

DAE/DHE122
Dental Anatomy, Embryology & Histology
2 credits 3 periods lecture + lab
Includes the histology and embryology of oral tissues; developmental disturbances of the face, oral cavity; and related structures; tooth composition and morphology; eruption patterns and occlusal evaluation. Use of skulls, models and multi-media resources also covered. **Prerequisites:** Admission to the Dental Assisting or Dental Hygiene Programs.

DAE/DHE124
Dental Radiography
2 credits 2 periods lecture
Physics of radiography, theory of radiation production, exposure techniques, radiation protection, film processing, mounting, and interpretation of radiographs. Course activities include multi-media resources. **Prerequisites:** (Admission to the Dental Assisting or Dental Hygiene Programs) or permission of instructor.

DAE131
Dental Radiography Laboratory
2 credits 6 periods lab
Radiation safety and infection control procedures for operator and patient. Film placement, exposure, development, mounting, and evaluation of dental radiographs. Operation and maintenance of x-ray and processing equipment. Interpretation of radiographic findings. **Prerequisites:** Admission to the Dental Assisting Program, DAE/DHE122, or permission of the instructor. **Corequisites:** DAE/DHE124, or permission of instructor.

DAE140
Dental Issues Seminar
1 credit 1 period lecture
Supplements students’ clinical experiences in dental practices. Analysis of clinical procedures in general and specialty dental practices. Recording, tabulating, and evaluation of skills performed. Completion of community oral health projects. Examination of ethical, judicial, and cultural diversity issues involved in the practice of dentistry. **Prerequisites:** A grade of "C" or better in DAE101, DAE102, DAE104, DAE106, DAE107, DAE/DHE114, DAE/DHE122, DAE/DHE203, and DAE/DHE204. **Corequisites:** DAE/DHE124, DAE131, DAE144, DAE145, DAE151, DAE224, DAE225, DAE226, DAE227, and DAE228.

DAE144
Pharmacology
1 credit 1 period lecture
Study of the principles of pharmacology, regulatory agencies, classification, uses, administration, and protocol for handling drugs used in dentistry. **Prerequisites:** Admission to the Dental Assisting Program or permission of instructor. DAE101, DAE102, DAE104, DAE106, DAE107, DAE/DHE114, DAE/DHE203, DAE/DHE204 or permission of instructor. **Corequisites:** DAE/DHE124, DAE131, DAE140, DAE145, DAE151, DAE224, DAE225, DAE226, DAE227, DAE228, or permission of the instructor.

DAE145
Oral Pathology
2 credits 2 periods lecture
Emphasis on processes that are the basis of oral disease. Identifies the role of the Dental Assistant in the treatment of oral disease. **Prerequisites:** Admission to the Dental Assisting Program or permission of instructor. DAE101, DAE102, DAE104, DAE106, DAE107, DAE/DHE114, DAE/DHE203, DAE/DHE204 or permission of instructor. **Corequisites:** DAE/DHE124, DAE131, DAE140, DAE144, DAE151, DAE224, DAE225, DAE226, DAE227, DAE228, or permission of the instructor.

DAE151
Survey of Dental Office Management
2 credits 2 periods lecture
Basic business procedures and office management skills related to the dental practice. **Prerequisites:** DAE101, DAE102, DAE104, DAE106, DAE107, DAE/DHE114, DAE/DHE122, DAE/DHE 203, DAE/DHE204, or permission of instructor. **Corequisites:** DAE/DHE124, DAE131, DAE144, DAE145, DAE224, DAE225, DAE226, DAE227, DAE228, or permission of instructor.

DAE152
Dental Materials Laboratory
2 credits 2 periods lecture
Composition, properties and criteria for use of dental materials. Principles of mixing techniques of restorative, preventive, and laboratory dental materials. **Prerequisites:** (Admission to the Dental Assisting or Dental Hygiene Programs) or permission of instructor.

DAE/DHE 204
Dental Materials Laboratory
1 credit 3 periods lab
Manipulate permanent and temporary restorative materials, impression material, dental waxes, cements, periodontal dressings, bases and liners. Fabricate mouth protectors, study models, and custom impression trays. Laboratory proficiency in margination of permanent restorative materials. **Prerequisites:** DAE/DHE 203 and Admission to the Dental Assisting or Dental Hygiene Programs or permission of instructor.

DAE224
General Clinical Practice
1 credit 5 periods lab
Placement of students in general practice specialty dental practices. Recording, tabulating, and evaluation of skills performed. Completion of community oral health projects. Examination of ethical, judicial, and cultural diversity issues involved in the practice of dentistry. **Prerequisites:** A grade of "C" or better in DAE101, DAE102, DAE104, DAE106, DAE107, DAE/DHE114, DAE/DHE122, DAE/DHE203, and DAE/DHE204. **Corequisites:** DAE/DHE124, DAE131, DAE140, DAE144, DAE145, DAE151, DAE225, DAE226, DAE227, and DAE228.
DAE225
Pediatric Clinical Practice
1 credit 5 periods lab
Placement of students in pediatric practice dental facilities for supervised practical experience. **Prerequisites:** A grade of "C" or better in DAE101, DAE102, DAE104, DAE106, DAE107, DAE/DHE114, DAE/DHE122, DAE/DHE203, and DAE/DHE204. **Corequisites:** DAE/DHE203, and DAE/DHE204.

DAE226
Periodontal Clinical Practice
1 credit 5 periods lab
Placement of students in periodontal practice dental facilities for supervised practical experience. **Prerequisites:** A grade of "C" or better in DAE101, DAE102, DAE104, DAE106, DAE107, DAE/DHE114, DAE/DHE122, DAE/DHE203, and DAE/DHE204. **Corequisites:** DAE/DHE203, and DAE/DHE204.

DAE227
Orthodontic Clinical Practice
1 credit 5 periods lab
Placement of students in orthodontic practice dental facilities for supervised practical experience. **Prerequisites:** A grade of "C" or better in DAE101, DAE102, DAE104, DAE106, DAE107, DAE/DHE114, DAE/DHE122, DAE/DHE203, and DAE/DHE204. **Corequisites:** DAE/DHE203, and DAE/DHE204.

DAE228
Oral & Maxillofacial Surgery Clinical Practice
1 credit 5 periods lab
Placement of students in oral and maxillofacial surgical facilities for supervised practical experience. **Prerequisites:** A grade of "C" or better in DAE101, DAE102, DAE104, DAE106, DAE107, DAE/DHE114, DAE/DHE122, DAE/DHE203, and DAE/DHE204. **Corequisites:** DAE/DHE203, and DAE/DHE204.

DAE298AA-AC
Special Projects
1-3 credits 1-3 periods lab
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment 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.

DAN — Dance Humanities & Science

DAN100
Introduction to Dance
3 credits 3 periods lecture
Overview of the field of dance focusing on origins, historical development, and cultural characteristics of the various styles of dance. **Prerequisites:** None.

DAN131
Ballet I
1 credit 3 periods lecture + lab
Introduction to the theory and practice of ballet 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.

DAN132
Modern Dance I
1 credit 3 periods lecture + lab
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.

DAN134
Ballet II
1 credit 3 periods lecture + lab
Theory and practice of ballet at the advanced beginning level. Development of movement quality and performance skills. **Prerequisites:** DAN131 or permission of instructor. **Course Note:** May be repeated for a total of two (2) credit hours.

DAN135
Modern Dance II
1 credit 3 periods lecture + lab
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 Note:** May be repeated for a total of two (2) credit hours.

DAN136
Modern Jazz Dance I
1 credit 3 periods lecture + lab
Theory and practice of modern jazz dance at the advanced beginning level. Development of movement quality and performance skills. **Prerequisites:** DAN133 or permission of instructor. **Course Note:** May be repeated for a total of two (2) credit hours.

DAN138
Dance Seminar I
1 credit 1 period lecture
Scientific and critical evaluation of work done in level I dance technique allowing the student to engage in in-depth discussion of the theory and practice of dance. **Prerequisites:** None. **Corequisites:** DAN131 or DAN132 or DAN133.

DAN210
Dance Production I
3 credits 3 periods lecture + lab
Introduction to the elements of light, sound, and scenery as they relate to the art of dance. **Prerequisites:** None.

DAN211
Dance Production II
3 credits 3 periods lecture + lab
Introduction to the theory and practice of makeup and costuming as they relate to dance. **Prerequisites:** None.
DAN264
Choreography I
3 credits 3 periods lecture + lab
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.

DAN267
Dance for Children
3 credits 3 periods lecture
Theory and practice of teaching creative, folk, square, and other dance forms for children. Includes field experience. Prerequisites: None.

DFT – Drafting Technology

DFT121
Introduction to Architectural Drafting
3 credits 6 periods lecture + lab
Emphasis on basic drafting techniques and principles of architectural drafting. Use of basic drafting instruments. Includes lettering, line weights, dimensioning, multiview projection, floor plans, elevations, construction details, and portfolio development. Prerequisites: None.

DFT122
Residential Architectural Drafting
3 credits 6 periods lecture + lab
Principles of architectural design and residential construction. Development and use of schematics, sketches, elevations, plans, and details for designing residential structures using board and/or CAD (Computer Aided Drafting) skills. Prerequisites: (DFT105AA or DFT252AA) and DFT121, or equivalent, or departmental approval.

DFT123
Commercial Architectural Drafting
3 credits 6 periods lecture + lab
Architectural drafting practices, principles of design, and preliminary planning as applied to commercial architecture. Development and use of schematics, sketches, elevations, plans, and details for designing commercial structures using board and/or CAD (Computer Aided Drafting) skills. Application of local building codes, and architectural graphic standards and specifications. Prerequisites: DFT122 or equivalent or departmental approval.

DFT126
Building Trades Blueprint Reading
3 credits 3 periods lecture
Analysis and interpretation of technical drawings common to the construction industry and building trades. Prerequisites: None.

DFT131
Civil Drafting I
3 credits 6 periods lecture + lab
Preparation of land plats, topographic maps, plans, profiles and sections used in land subdivision, construction, hydrology, structural geology, mining and civil engineering. Photogrammetry, cut and fill calculations, and relationship of field survey work to the engineering office. Prerequisites: (DFT121 and DFT252AA) or departmental approval.

DFT221
Architectural Rendering: Pen & Ink, Technical Techniques
3 credits 6 periods lecture + lab
Two and three dimensional drawings with shades/shadows, landscape, hardscape, finishes, human figures, and architectural entourage in pencil and ink media. Prerequisites: DFT121, or equivalent, or departmental approval.

DFT222
Architectural Rendering: Color, Freehand Techniques
3 credits 6 periods lecture + lab
Emphasis on color rendering of two and three dimensional drawings using a variety of color media. Prerequisites: DFT121, or equivalent, or departmental approval.

DFT223
Structural Steel Detailing
3 credits 6 periods lecture + lab
Study of the manufacture of structural steel and its application in the construction field. Includes study of plates, girders, roof trusses, latticed girders, and beams. Emphasis on drawing and detailing of erection plans and diagrams using board and/or CAD (Computer Aided Drafting) skills and techniques. Prerequisites: DFT122, or equivalent, or departmental approval.

DFT224
Landscape Architectural Drafting
3 credits 6 periods lecture + lab
Application of commercial design techniques to landscape architectural drafting. Selection of materials, awareness of problems, and emphasis on the production of site plan drawings using board and/or computer aided drafting (CAD) skills. Prerequisites: DFT122 or equivalent or departmental approval.

DFT252AA
Computer Aided Drafting I: AutoCAD
3 credits 6 periods lecture + lab
Industrial use of AUTOCAD equipment (hardware and software) in the areas of mechanical, electronic and construction drawings. Prerequisites: DFT110, or DFT121, or departmental permission.

DFT254AA
Computer Aided Drafting II: AutoCAD
3 credits 6 periods lecture + lab
Advanced AutoCAD techniques in constructing three-dimensional objects and symbols, dimensioning and text; advanced techniques for projection, rotation, and translation of objects; advanced plotter use. Prerequisites: DFT105AA, or DFT252AA, or equivalent or departmental approval.

DFT256AA
Computer Aided Drafting III: AutoCAD
3 credits 6 periods lecture + lab
Use of industrial AutoCAD CAD equipment and programs; advanced concepts; customized CAD usage. Creation and use of three-dimensional components and symbols to design complex objects. File management techniques; file archival; custom command creation; use of macro programs to solve design problems. Prerequisites: CAD204 or DFT254AA or equivalent.

DFT257AD
Architectural CAD: Architectural Desktop
3 credits 6 periods lecture + lab
Emphasis on the architectural applications of computer aided drafting. Use of computer hardware and software to generate residential working drawings. Focus on floor and foundation plans, elevations, sections, details, schedules, and plotting. Prerequisites: DFT122, or equivalent or departmental approval.
DFT254AA or Admission to the Dental Hygiene Program or permission of the department.

DFT262
3D Architectural Animation
3 credits 6 periods lecture + lab
Creation of 3D architectural animations. Includes sketches, storyboards, animation techniques, and portfolio development. Prerequisites: DFT122, DFT254AA, or permission of the department.

DFT290AA
Computer Aided Drafting Update: AutoCAD
1 credit 2 periods lecture + lab
Acquaints experienced users with latest revisions to AutoCAD software. May be taken a maximum of once during an academic year, for a maximum of 4 credits. Prerequisites: DFT254AA or equivalent, or permission of the department.

DFT292
The Latest and Greatest for CAD
1 credit 2 periods lecture + lab
The exploration and comparative analysis of the newest software packages on the market designed to enhance or replace existing CAD (Computer Aided Drafting) software. Prerequisites: DFT105 and DFT254, or permission of the department.

DHE112
Oral Pathology
3 credits 3 periods lecture
Identification, classification, etiology and treatment of lesions of the oral mucosa and atypical conditions of the oral cavity and supporting structures. Understanding of abnormal conditions to recognize the parameters of comprehensive dental hygiene care. Multi-media resources are used extensively for identification of oral lesions. Prerequisites: Admission to the Dental Hygiene Program or permission of instructor.

DHE/DAE114
Emergency Medicine
2 credits 2 periods lecture
Introduction to recording and interpreting medical history. Additional topics include: recognition of signs and symptoms of medical emergencies, procedures and techniques introduced to prevent emergencies and management of emergency situations in the dental environment. Prerequisites: Admission to the Dental Hygiene or Dental Assisting Programs.

DHE119
Head & Neck Anatomy
3 credits 3 periods lecture
Study of the structures of the head and neck relevant to dental hygiene. Topics include: osteology, musculature, blood supply, glandular tissue, cranial nerves and routes of infection. Course activities include use of skulls, models and multi-media resources. Prerequisites: Admission to the Dental Hygiene Program or permission of instructor.

DHE/DAE122
Dental Anatomy, Embryology & Histology
2 credits 3 periods lecture + lab
Includes the histology and embryology of oral tissues; developmental disturbances of the face, oral cavity, and related structures; tooth composition and morphology; eruption patterns and occlusal evaluation. Use of skulls, models and multi-media resources also covered. Prerequisites: Admission to the Dental Assisting or Dental Hygiene Programs.

DHE/DAE124
Dental Radiography
2 credits 2 periods lecture
Physics of radiography, theory of radiation production, exposure techniques, radiation protection, film processing, mounting, and interpretation of radiographs. Course activities include multi-media resources. Prerequisites: Admission to the Dental Assisting or Dental Hygiene Programs or permission of instructor.

DHE125
Dental Radiography Laboratory
1 credit 3 periods lab
Radiation safety and infection control procedures for operator and patient. Film placement, exposure, development, mounting and evaluation of dental radiographs. Operation and maintenance of X-ray and processing equipment. Interpretation of radiographic findings. Prerequisites or Corequisites: DAE/DHE124 and admission to the Dental Hygiene Program or permission of instructor.

DHE120
Pre-Clinical Dental Hygiene
6 credits 12 periods lecture + lab
Introduction to the dental hygiene profession and the process of care. Infection control, patient assessment, preventive treatment and dental hygiene instrumentation are practiced. Students are introduced to self assessment skills and quality improvement. Prerequisites: Admission to the Dental Hygiene Program or permission of instructor.

DHE127
Prevention of Dental Disease
3 credits 3 periods lecture
Introduction of preventive concepts to help clients achieve control of oral diseases and injury. Topics include etiologic agents, caries process, nutrition, fluorides, sealants and patient/client motivation techniques. Multi-media resources used extensively. Prerequisites: Admission to the Dental Hygiene Program or permission of instructor.
DHE120 and admission to DHE233.
Admission to DHE132 and DHE133 and DHE232.
Admission to the Dental Hygiene Program or permission of instructor. **Prerequisites:** DHE120 and admission to the Dental Hygiene Program or permission of instructor. **Corequisites:** DHE133.

**DHE133**
Dental Hygiene Clinic I
3 credits 9 periods lab
Application of the dental hygiene process of care with emphasis on assessment, planning and implementation. Introduction to evaluation of dental hygiene therapy. **Prerequisites:** DHE120 and admission to the Dental Hygiene Program. **Corequisites:** DHE132 and current CPR card.

**DHE/DAE203**
Dental Materials
2 credits 2 periods lecture
Composition, properties and criteria for use of dental materials. Principles of mixing techniques of restorative, preventive, and laboratory dental materials. **Prerequisites:** Admission to the Dental Assisting or Dental Hygiene Programs or permission of instructor.

**DHE/DAE204**
Dental Materials Laboratory
1 credit 3 periods lab
Manipulate permanent and temporary restorative materials, impression material, dental waxes, cements, periodontal dressings, bases and liners. Fabricate mouth protectors, study models, and custom impression trays. Laboratory proficiency in margination of permanent restorative materials. **Prerequisites:** DAE/DHE203 and Admission to the Dental Assisting or Dental Hygiene Programs or permission of instructor.

**DHE212**
Dental Hygiene Theory II
2 credits 2 periods lecture
Study of the dental hygiene process of care with emphasis on comprehensive care planning, case presentation, and clinical decision making. Introduction to advanced periodontal instrumentation. **Prerequisites:** DHE132 and DHE133 and admission to the Dental Hygiene Program. **Corequisites:** DHE213.

**DHE213**
Dental Hygiene Clinic II
5 credits 15 periods lab
Application of the dental hygiene process of care with emphasis on comprehensive care planning, case presentation, clinical decision making, advanced instrumentation and improved time utilization. **Prerequisites:** DHE132 and DHE133 and admission to the Dental Hygiene Program. **Corequisites:** DHE212.

**DHE219**
Practice Management
2 credits 2 periods lecture
Integration of practice management concepts and comprehensive quality patient care in preparation for future collaborative practice between dental hygienists and dentists. Students are challenged with practice situations including productivity, conflict management, ethical and legal issues. **Prerequisites:** Admission to the Dental Hygiene Program or permission of instructor.

**DHE225**
Periodontics
3 credits 3 periods lecture
Principles of periodontology; etiology, microbiology, pathogenesis, classification and characteristics of healthy and diseased periodontal tissues. Surgical treatment of periodontal disease and the effects of dental hygiene therapy, surgical techniques and maintenance therapy. Evaluation of the scientific literature and multi-media resources are used extensively. **Prerequisites:** Admission to the Dental Hygiene Program or permission of instructor.

**DHE227**
Dental Anesthesia
2 credits 4 periods lecture & lab
A comprehensive lecture and laboratory course providing concepts and techniques for the administration of local anesthetic agents and nitrous oxide. Experience gained in medical history review, record keeping, patient management and hands on experience administering local anesthetics and nitrous oxide in a clinical setting. **Prerequisites:** DHE119 and current CPR certification.

**DHE229**
Community Oral Health
3 credits 3 periods lecture
An examination of methods used to assess the oral health status of the community and to plan, implement, finance and evaluate dental public health programs. Focus on community-based health promotion and disease prevention measures to improve the oral health of the population, as well as the characteristics of dental care delivery systems and the social, political, psychological and economic factors affecting utilization within the system. **Prerequisites:** Admission to the Dental Hygiene Program or permission of instructor.

**DHE232**
Dental Hygiene Theory III
2 credits 3 periods lecture + lab
Study of the dental hygiene process of care with emphasis on the patient with special needs and advanced instrumentation. Students participate in field observations and present case documentations. **Prerequisites:** (DHE212 and DHE213), and admission to the Dental Hygiene Program. **Corequisites:** DHE233.

**DHE233**
Dental Hygiene Clinic III
5 credits 15 periods lab
Application of the dental hygiene process of care with emphasis on diverse populations. Students prepare for clinical practice using self assessment, evaluation and critical thinking skills. **Prerequisites:** (DHE212 and DHE213), and admission to the Dental Hygiene Program. **Corequisites:** DHE232.
DHE290
Dental Hygiene Board Review
1 credit 1 period lecture
Condensed review of the sciences of the dental hygiene profession. Prepares student for the Dental Hygiene National Board Examination. Course employs case studies and administration of a mock written board. Prerequisites: None. Corequisites: None. Note: Course changes not available at time of printing. Consult with Academic Advisement.

DHE298AA-AC
Special Projects
1-3 credits 1-3 periods lab
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment 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.

ECE – Engineering Science

ECE102
Engineering Analysis Tools/Techniques
2 credits 4 periods lecture + lab
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 & Design
2 credits 4 periods lecture + lab
Proposed Description: 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, high school physics, or PHY111.

ECE211
Engineering Mechanics - Statics
3 credits 5 periods lecture & lab
Mathematical treatment of the basic physical principles of statics. Methods of vector algebra and vector calculus. Prerequisites: ECE103, (MAT230 or MAT231), and (PHY115 or PHY121). Corequisites: MAT241.

ECE212
Engineering Mechanics - Dynamics
3 credits 5 periods lecture & lab
Kinematics and kinetics of particles, translating and rotating coordinate systems, rigid body kinematics, dynamics of systems of particles and rigid bodies, and energy and momentum principles. Prerequisites: ECE211 and MAT241.

ECE241
Plane Surveying
3 credits 5 periods lecture + lab
Theory and field work in construction and land surveys. Includes use of the level and transit, horizontal measurement by tape and computation, establishment of line and grade. Prerequisites: Knowledge of right triangle trigonometry.

EDU – Education

EDU105
Substitute Teacher Training
2 credits 2 periods lecture + lab
Survey of issues important to substitute teaching in Arizona. Discussion of certification, professional behavior, and classroom techniques. In school practicum provides hands-on application of concepts. Prerequisites: None.

EDU160
Introduction to Developmental Disabilities
3 credits 3 periods lecture
Basic overview of causation, prevention and habilitation of developmentally disabled individuals. Historical development and influences affecting remediation and treatment of developmentally delayed or disabled individuals. Prerequisites: None.

EDU161
Family Centered Services
3 credits 3 periods lecture
Specific techniques and strategies available to families that enhance interactions with a special needs child. An overview of dynamics of family-child and parent-child relations. Legislation affecting children with special needs. Prerequisites: None.

EDU170
Disaster Management for Schools
3 credits 3 periods lecture
School preparedness planning for community disasters and major school crises. Addresses preparedness, response, and recovery. Creation of disaster/crisis management plan. Prerequisites: None.
EDU205
Self-Assessment for Teaching
3 credits 3 periods lecture
An exploratory course for students considering a teaching career. Examination of the field of education in the United States through field experiences, self-assessment activities, and career information. **Prerequisites:** None.

EDU206
Classroom Strategies For the Exceptional Learner
3 credits 3 periods lecture + lab
Practical experience with exceptional learners in the classroom. Understanding of and teaching strategies for exceptional learners with mild/moderate mental retardation, learning disabilities, emotional disabilities, physical disabilities, and/or other health-related impairments. **Prerequisites:** EDU222.

EDU210
Methods For Working With the ESL Student
3 credits 3 periods lecture
Strategies for working with the ESL student in language arts, science, math, social studies, and culture. Components of curriculum content and tutoring techniques emphasized. Designed for pre-baccalaureate students. **Prerequisites:** EDU225, or permission of instructor. **Course Notes:** Requires fifteen (15) hours of field experience in an elementary or secondary classroom environment.

EDU211
Methods For Working With the Bilingual Student
3 credits 3 periods lecture
Strategies for working with the bilingual student in language arts, science, math, social studies, and culture. Components of bilingual curriculum content and tutoring techniques emphasized. Designed for pre-baccalaureate students. **Prerequisites:** (EDU225 and proficiency in Spanish), or permission of instructor. **Course Notes:** Requires fifteen (15) hours of field experience in an elementary or secondary classroom environment.

EDU212
English as a Second Language For Bilingual Students
3 credits 3 periods lecture
Techniques for working with English as a Second Language (ESL) students in bilingual settings. Covers multiple intelligences theory and second-language acquisition theories. Methods, materials, and programs appropriate for bilingual students emphasized. Designed for pre-baccalaureate students. **Prerequisites:** EDU225.

EDU213
Reading and Writing Strategies in an ESL/Bilingual Setting
3 credits 3 periods lecture
Theories and terminology in English as a Second Language (ESL). Second-language acquisition and reading emphasized. Techniques, strategies, and learning activities as well as reading comprehension and writing strategies also covered. Designed for pre-baccalaureate students. **Prerequisites:** EDU225.

EDU216
Introduction to Assessment of Linguistically Diverse Learners
3 credits 3 periods lecture
Introduction to the assessment of Limited English Proficient (LEP) students and programs. Identification, exiting, and ongoing assessment of student learning as well as legal issues and historical perspectives covered. Connection between assessment and instruction included. State standards emphasized. Designed for pre-baccalaureate students. **Prerequisites:** EDU225.

EDU221
Introduction to Education
3 credits 3 periods lecture
Overview of education and educational institutions in our society, including current issues, responsibilities, and qualifications of educators. Opportunity for students to assess their interest in this area. **Prerequisites:** None. **Course Notes:** Requires minimum of 30 hours of field experience in elementary or secondary classroom environment.

EDU222
Introduction to the Exceptional Learner
3 credits 3 periods lecture
Overview of the exceptional learner, one who differs from the average or normal, with emphasis on factors relating to current practices, identification, characteristics, and educational adaptations. Issues related to mildly disabled, severely disabled, emotionally and behaviorally disordered, mentally retarded, and gifted students. Includes school-based practicum. **Prerequisites:** None.

EDU225
Foundations of Approaches to Serving English Language Learners (ELL)
3 credits 3 periods lecture
Rationale for and current educational and legal issues for English Language Learners (ELL). Comparison and evaluation of various types of language educational models including Structured English Immersion (SEI), English as a Second Language (ESL) and bilingual. Approved school-based practicum experience. **Prerequisites:** None.

EDU230
Cultural Diversity in Education
3 credits 3 periods lecture
Examination of the relationship of cultural values to the formation of the child’s self-concept and learning styles. Examination of the role of prejudice, stereotyping, and cultural incompatibilities in education. Emphasis on preparing future teachers to offer an equal educational opportunity to children of all cultural groups. **Prerequisites:** None.

EDU240
Methods for Teaching Structured English Immersion (SEI) and English as a Second Language (ESL)
3 credits 3 periods lecture
Methods of developing lesson plans in language arts, science, math, social studies, and culture for English Language Learners (ELL). Emphasis on components of curriculum content, teaching techniques, development and evaluation of teaching materials. Approved school-based practicum required. **Prerequisites:** Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and (EDU225 or departmental approval), or must have a provisional or standard elementary, secondary, or special education teaching certificate.
EDU241
Methods for Teaching the Bilingual Student
3 credits 3 periods lecture
Methods of developing lesson plans in the content areas. Emphasis on components of bilingual curriculum content, teaching techniques, development and evaluation of teaching materials. Prerequisites: (SPA103 or SPA104) and (EDU225 and proficiency in Spanish), or permission of instructor. Course Notes: Requires fifteen (15) hours of field experience in an elementary or secondary classroom environment.

EDU245
Internship in Bilingual/ESL Education
3 credits 3 periods lecture
Provides an opportunity for future teachers and teacher aides to receive supervised, practical, on-site experience in a K-12 bilingual or ESL (English as a Second Language) classroom under the direction of professional teachers. Prerequisites: (EDU225 and EDU230 and ENG213) and (EDU210 or EDU211), or permission of instructor.

EDU270
Learning and the Brain
3 credits 3 periods lecture
Teaching and learning issues within a cognitive processes context. Covers emotion, memory, and recall as well as early brain development and its relationship to learning. Emphasis on current neuroscientific brain research and how it impacts teaching practice in preK-12 classrooms. Prerequisites: None.

EDU282AA-AC
Volunteerism for Education: A Service Learning Experience
1-3 credits 1-3 periods lab
Service-learning field experience within educational systems, citizen advocacy groups, and human service organizations/agency. May be repeated for a total of six (6) EDU282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of instructor.

EDU/ENH291
Children's Literature
3 credits 3 periods lecture
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.

EDU/HUM/STO292
The Art of Storytelling
3 credits 3 periods lecture
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.

EDU296WC
Cooperative Education
3 credits 15 periods lab
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.

EDU298AA-AC
Special Projects
1-3 credits 1-3 periods lab
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment 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.

EMT – Emergency Medical Technology

EMT/HLR101
Cardiopulmonary Resuscitation/Basic Cardiac Life Support
0.5 credit 0.5 period lecture
Designed to train students in the skills of cardiopulmonary resuscitation to include mouth-to-mouth, mouth-to-mask, and cardiac compression, stabilization of adult, infant, and child victims with airway obstruction, respiratory, and cardiac arrest. Prerequisites: None.

EMT/FSC104
Basic Emergency Medical Technology
8 credits 9.45 periods lecture + lab
Techniques of emergency medical care in accordance with national and state curriculum. Study of the human body, patient assessment, treatment of medically or traumatically compromised patients, special hazards, and medical operations. IV monitoring, Sudden Infant Death Syndrome (SIDS), patient-assisted medication administration, automated external defibrillators, and blood-glucose monitoring. Includes participation in two eight-hour clinical rotations through a local emergency department scheduled during the semester outside normal class hours. Requires personal pocket mask, stethoscope, pen light, and trauma scissors. Prerequisites: Must be at least 18 years of age prior to applying to the BLS (Basic Life Support) Training Program per Arizona Revised Statutes, and must have a current Cardio Pulmonary Resuscitation certification from the American Heart Association, American Red Cross, or other equivalent organization at the Healthcare Provider Level, meeting the new Guidelines 2002. Minimum ninth grade level reading proficiency on the Nelson-Denney Examination or equivalent. Proof of TB testing or chest x-ray with a negative result within 6 months prior to application; immunity to rubella (German measles) and rubeola.
EMT106
Ambulance Operations
2 credits 2 periods lecture + lab
Practical application of rules and regulations governing care and transport of patient. Inventory, methods of disinfection, and charge procedures covered. Practical and defensive techniques and maintenance of the ambulance demonstrated and practiced, according to the U.S. Department of Transport (DOT) National Highway Traffic Safety Administration (NHTSA).
Prerequisites: EMT at any level of certification.

EMT/FSC116
Emergency Medical Communications (EMD)
1.5 credits 1.8 periods lecture + lab
Designed to educate and train individuals as the emergency link among the community, health care providers, and law enforcement agencies. Comprehensive program to educate and train in procedures of communications, interrogation, assessment, and deployment. Includes interactive computer lab and scheduled observation with assignment at a dispatch center.
Prerequisites or Corequisites: EMT101 or HLR101 or any current American Red Cross, CPR for the Professional Rescuer, or American Heart Association Basic Life Support Health Care Provider validation.

EMT120
Spanish for Emergency-Care Providers
1 credit 1 period lecture
Participative course for prehospital and other emergency-care providers. Vocabulary, pronunciations, voice inflections, phrases, conversational terms, and methods of interviewing the ill or injured victim. Cultural information to facilitate approach and interaction with the victim, family, and/or significant other. Documentation of the interview content on the prehospital encounter form.
Prerequisites: Certified EMT or licensed medical personnel.

EMT122
American Sign Language for Emergency-Care Providers
1 credit 1 period lecture
A participative course designed for the prehospital health-care provider. Vocabulary to create phrases, terms, and methods of interview for the ill or injured victim who is deaf. Cultural information designed to facilitate approach and interaction with the victim, family, and/or significant other. Documentation of the interview content on the prehospital encounter form.
Prerequisites: None.

EMT165
Pediatric Education for Prehospital Providers: Basic
2 credits 2.87 periods lecture + lab
An interactive, scenario-based course designed for Basic EMTs who are not yet practicing in the field. Enables these EMTs to perform a rapid assessment of sick and injured children in a variety of different circumstances. Includes use of pediatric assessment triangle, developmental differences, injury prevention, basic airway management techniques, recognition of medical emergencies such as pediatric trauma, mechanism of injury, submersion events, children with special health care needs, abuse and neglect, child and family interactions, use of specialized equipment, and special issues in pediatric transportation. Treatment to children is in accordance with recommendations of the American Academy of Pediatrics. Prerequisites: EMT at any level of certification and current employment as an EMT at any level, or permission of instructor.

EMT190
Pediatric Education for Prehospital Providers: Intermediate
0.5 credit 0.72 period lecture + lab
An interactive, scenario-based course designed for certified EMTs who practice in the field. Enables providers to perform a rapid assessment of sick and injured children in a variety of circumstances. Includes use of pediatric assessment triangle, developmental differences, injury prevention, airway management techniques, intravenous and intraosseous access and monitoring, recognition of medical emergencies, pediatric trauma and mechanism of injury, submersion events, children with special health care needs, child abuse and neglect, child and family interactions, use of specialized equipment, documentation of signs, symptoms, care and transportation, special issues in pediatric transportation. Treatment to children is in accordance with recommendations of the American Academy of Pediatrics. Prerequisites: EMT at any level of certification and current employment as an EMT at any level, or permission of instructor.

EMT200
Refresher Course for Certified EMTs
2 credits 2.7 periods lecture + lab
Designed to meet National and Arizona Department of Health Services (A-DHS) recertification for EMTs. Enhances the knowledge base of the Emergency Medical Technician (EMT) and reinforces basic skills competencies. Prerequisites: Current basic EMT certification or permission of department.

EMT200AA
EMT - Basic Certification Renewal Challenge
0.6 credit 0.6 period lecture
Designed to contribute to Arizona Department of Health Services (A-DHS) Bureau of Emergency Medical Services (B-EMS) recertification requirements for Emergency Medical Technician Basic (EMTB) according to the U.S. Department of Transportation (DOT) EMT-Basic National Curriculum and the Arizona EMT Basic Refresher Curriculum Guidelines. Prerequisites: Current Basic Life Support, American Heart Association Healthcare Provider CPR or equivalent, and Current EMT Basic certification in the state of Arizona.
EMT201
Interactive Basic EMT Refresher
1 credit 2.2 periods lecture + lab
Designed to contribute to Arizona Department of Health Services recertification requirements for Emergency Medical Technicians (EMT) according to the US Department of Transportation (DOT) EMT-Basic National Curriculum and the Arizona Basic EMT Refresher Curriculum Guidelines. Enhances the knowledge base of the EMT. Updates a wide variety of subjects including respiratory and cardiac emergencies, and interaction with advanced life support providers. **Prerequisites:** Current Basic Life Support EMT certification in the state of Arizona and successful completion of 16 hours of interactive media with documented pre-test and post-test validation.

EMT230
Advanced Concepts for EMTs
1.5 credits 1.5 periods lecture + lab
Designed to meet Arizona Department of Health Services recertification requirements for EMTs. Enhances the knowledge base of the Emergency Medical Technician (EMT) and incorporates new information into daily practice. Updates a wide variety of subjects including medical and trauma emergencies, cardiac life support, interaction with advanced life support providers, and emergency scene management. **Prerequisites:** Current Basic EMT certification in the state of Arizona.

EMT235
Emergency Cardiac Care
3 credits 3 periods lecture
Designed to acquaint all levels of emergency care providers with basic electrocardiographic (ECG) rhythm analysis and interpretation and related care in a clinical and prehospital setting. Required content for the identification and treatment of cardiac emergencies. **Prerequisites:** EMT/FSC104 or permission of instructor.

EMT236
Pharmacology in an Emergency Setting
3 credits 3 periods lecture
Designed for the Emergency Medical Technician dealing with the administration of emergency medications in the field as outlined in current paramedic legislation. In-depth coverage of medications enumerated in the algorithms of patient care as defined by the American Heart Association (AHA), Advanced Cardiac Life Support (ACLS). Coverage of medications that interact or interfere with the AHA ACLS algorithms. Indications, therapeutic effect, contra-indications, toxicology, and side effects to medications. **Prerequisites:** EMT/FSC104 or permission of instructor. MAT082 or equivalency preferred but not required.

EMT/FSC238
Vehicular Extrication & Patient Stabilization
2 credits 2 periods lecture
Participative course designed for the Emergency Medical Technicians (EMT). Incorporates new knowledge and skills necessary to access, extricate, and care for victims of crash incidents. Provides exposure to scene management, including size-up, disentanglement, victim stabilization for single and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures to selected victim scenarios. **Prerequisites:** Basic EMT certification, current enrollment in EMT Basic program, nurse with emergency department experience, or law enforcement personnel, or permission of instructor.

EMT240
Advanced Cardiac Life Support
2 credits 2 periods lecture
Didactic and psychomotor skills training and validation in techniques of Advanced Cardiac Life Support according to the 1994 Standards and Guidelines of the American Heart Association. Includes endotracheal intubation, ECG arrhythmia recognition, synchronized, unsynchronized and automated defibrillation, cardiovascular pharmacology, and electronic pacemaker. For all health-care related professionals, clinical and prehospital. **Prerequisites:** Current American Red Cross or American Heart Association Basic Life Support Health Care Provider validation, or National Safety Council Green Cross Professional Rescuer, EMT235, EMT236, or permission of instructor.

EMT241
Advanced Cardiac Life Support Refresher Course
0.5 credit 0.5 period lecture + lab
Designed for all levels of emergency medical technicians, nurses, physicians, and physicians’ assistants to assure maintenance of didactic and psychomotor skill training in techniques of Advanced Cardiac Life Support according to the 1994 Standards and Guidelines of the American Heart Association. Includes endotracheal intubation, ECG arrhythmia recognition, synchronized, unsynchronized and automated defibrillation, cardiovascular pharmacology, and electronic pacemaker. **Prerequisites:** Current American Red Cross or American Heart Association Basic Life Support Health Care Provider validation, current validation in Advanced Cardiac Life Support, EMT240, or permission of instructor.

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For additional information on PC program competencies, visit:
http://www.dist.maricopa.edu/academic/curric/progpc.php

For additional information on MCCC course competencies, visit:
http://www.dist.maricopa.edu/academic/curric/cs.php
EMT242
Pediatric Advanced Life Support
1 credit 1 period lecture
Didactic and psychomotor skill education and training in techniques of Pediatric Advanced Life Support. Includes endotracheal intubation, defibrillation, arrhythmia recognition, pharmacology, and intraosseous infusion. Required for American Heart Association Provider approval and validation. Prerequisites: Current course in American Heart Association Health Care Provider or American Red Cross Professional Rescuer, EMT235, EMT236, or permission of instructor.

EMT245
Trauma Management I
2 credits 3.5 periods lecture + lab
Designed to instruct prehospital care personnel in the critical skills necessary to manage the trauma victim and the emergency scene through the Incident Command System (ICS). Enhances basic emergency medical technology (EMT) skills by focusing on emergency care interventions. Provides exposure to victim assessment, initial treatment, resuscitative techniques, and documentation. Prerequisites: Basic EMT certification or nurse with emergency room experience, or permission of department.

EMT246
Trauma Management II
4 credits 4 periods lecture + lab
Designed to instruct advanced prehospital care personnel in the critical skills necessary to manage the trauma victim and the emergency scene through the Incident Command System (ICS). Enhances advanced emergency medical technology (EMT) skills by focusing on emergency care interventions. Provides advanced exposure to victim assessment, initial treatment, resuscitative skills, invasive techniques, electrical and pharmacologic interventions, stabilization, transportation of the victim to an emergency care facility, and documentation. Prerequisites: Certified as a Basic EMT, Intermediate EMT, Paramedic, or Arizona registered prehospital nurse, or permission of instructor.

EMT249
12 Lead ECG Rhythm Analysis
0.5 credit 0.5 period lecture
Designed to acquaint all levels of emergency care providers with electrocardiographic (ECG) rhythm analysis and interpretation using the 12-lead electrocardiogram (ECG). Required content for identification and treatment of myocardial infarction and its complications. Prerequisites: NCE248, or EMT235, or permission of instructor.

EMT255AA
Instructional Strategies for EMT Occupations
1 credit 1 period lecture
Participative course to prepare all levels of EMT and/or nurses as instructors in EMT programs. Includes writing objectives, preparing class and course schedules, reviewing Arizona Department of Transportation Rules and Regulations, preparing for lecture, developing and using audiovisual (AV) aids, processing assignments and exams, classroom discipline, counseling, and student/instructor evaluation methods. Prerequisites: Arizona Department of Health Services certification as a Basic EMT, or Intermediate EMT, or Advanced EMT (Paramedic), or Arizona registered nurse with two-years experience in emergency nursing.

EMT255AB
Advanced Cardiac Life Support Instructional Strategies
1 credit 1 period lecture
Participative course to prepare advanced EMTs (Paramedics), physicians, and/or nurses as instructors in Advanced Cardiac Life Support courses. Includes American Heart Association Standards and guidelines, teaching and testing skills, writing objectives, preparing class and course schedules, preparing for lectures, developing and using audio visual (AV) aides; processing assignments and exams, classroom discipline, counseling, and student/instructor evaluation methods. Successful completion qualifies individual to teach Advanced Cardiac Life Support classes. Prerequisites: Current certification as Advanced Cardiac Life Support Provider and (State of Arizona Advanced EMT [Paramedic] certification or Arizona Registered Nurse or licensed physician).
Course Descriptions

EMT255AD
Basic Cardiac Life Support
Instructional Strategies
0.5 credit 0.5 period lecture + lab
A participative course to prepare instructors in Basic Life Support (CPR) courses. Includes American Heart Association Standards and guidelines, teaching and testing skills, classroom discipline, counseling, and student/instructor evaluation methods. Successful completion qualifies individual to teach Basic Life Support (CPR) classes according to American Heart Association Standards. Prerequisites: Current certification as a Basic Life Support Health Care Provider level, EMT101 or HLR101, or equivalent.

EMT255AE
Emergency Medical Skills Technician Skills Examiners
0.5 credit 0.5 period lecture + lab
Overview of roles and responsibilities for Emergency Medical Technician (EMT) skills identified in the USDOT Basic Life Support Curriculum, USDOT EMT-Intermediate Curriculum, and USDOT Paramedic National Standard Curriculum. Includes principles of adult learning, EMT skills benchmarks and critical criteria, evaluation principles and methods, skills station management, skills examination policies, and documentation of skills performance. Prerequisites: Arizona Department of Health Services (A-DHS) certification as an EMT-Basic, EMT-Intermediate, Paramedic, or Arizona registered nurse with two years’ experience in emergency nursing.

EMT264
Vascular Access for EMTs
1 credit 1 period lecture + lab
Includes review of anatomy of circulatory system. Skills include peripheral intravenous cannulation techniques, fluid resuscitation, obtaining venous blood samples for laboratory analysis, infection control techniques for the safety of self and victim, and complications of intravenous cannulation; each and all with medical control. Content concurrent with American College of Surgeons Division of Trauma Standards of Care. Prerequisites: EMT-Basic or registered nurse with emergency and/or critical care experience.

EMT265
Pediatric Education for Prehospital Providers: Advanced
1 credit 1.43 periods lecture + lab
An interactive, scenario based course designed for Advanced EMTs who practice in the field. Enables providers to perform a rapid assessment of sick and injured children in variety of circumstances. Includes scene management, use of pediatric assessment triangle, developmental differences, injury prevention, airway management techniques, intravenous and intraosseous access and monitoring, ECG arrhythmia recognition, synchronized and unsynchronized cardioversion, pediatric trauma and mechanism of injury, submersion events, children with special health care needs, child abuse and neglect, child and family interactions, use of specialized equipment, documentation of signs, symptoms, care and transportation, special issues in pediatric transportation. Treatment to children is in accordance with recommendations of the American Academy of Pediatrics. Prerequisites: Advanced cardiac life support course or emergency cardiac care course, and EMT-Paramedic certification, and current employment as an EMT Paramedic, or permission of instructor.

EMT272AA
Advanced Emergency Medical Technology Practicum
12.5 credits 17.37 periods lecture
Designed to provide the emergency medical technician with advanced knowledge about the acute critical differences in physiology, pathophysiology, and clinical symptoms, as they pertain to pre-hospital emergency care. Emphasis on developing diagnostic and advanced emergency treatment skills necessary to care for the acutely ill and seriously injured. Prerequisites: MAT102 or equivalent, or a satisfactory score on an applicable district placement exam, ENG101, EMT235, and EMT236. Comprehensive written, oral and practical evaluation on all prerequisite courses required prior to selection for this course. Student must have a valid Arizona Certification and be employed as an EMT for one full calendar year prior to registration in this course. Corequisites: EMT272AB and EMT272LL.

EMT272LL
Advanced Emergency Medical Technology Practicum
7.5 credits 37.5 periods lab
Clinical and vehicular practicum in support of EMT272AA and EMT272AB. Prerequisites or Corequisites: EMT272AA and EMT272AB.
EMT273
Advanced Life Support Refresher Course
3.5 credits 4 periods lecture + lab
Designed to meet requirements for EMT-Intermediate and EMT-Paramedic under guidelines of the U.S. Department of Transportation (U.S. DOT), National Registry of EMTs (NREMT) as recognized by the Arizona Department of Health Services (A-DHS) Bureau of Emergency Services (B-EMS). Provides updated knowledge and skills related to hypoperfusion states, respiratory arrest or insufficiency, seizure states, cardiovascular emergencies, unconscious of undetermined etiology, head injury with altered levels of consciousness, and chest trauma. Validates requisite knowledge, validates skills, reviews and informs students of new standards and technologies. Trains and educates out of state applicants in knowledge, procedures, medications, and skills specific to Arizona's system. Remediates students who have been unsuccessful three times on the certification examinations, and refreshes information for those who have expired certifications and desire re-entry into the EMS system. 
Prerequisites: EMT - Advanced Paramedic certification or EMT - Intermediate certification.

EMT273AAB
Advanced Life Support Refresher Course: Part II
1 credit 1.25 periods lecture + lab
Designed to meet requirements for EMT-Intermediate and EMT-Paramedic under guidelines of the U.S. Department of Transportation (U.S. DOT), National Registry of EMTs (NREMT) as recognized by the Arizona Department of Health Services (A-DHS) Bureau of Emergency Services (B-EMS). Provides updated knowledge and skills related to airway assessment and treatment, including all Basic Life Support (BLS) and Advanced Life Support (ALS) level skills, pharmacology, and assessment and treatment of the cardiac patient. Validates requisite knowledge, validates skills, reviews and informs students of new standards and technologies. Trains and educates out-of-state applicants in knowledge, procedures, medications, and skills specific to Arizona's system. Remediates students who have been unsuccessful three times on the certification examinations, and refreshes information for those who have expired certifications and desire re-entry into the EMS system. 
Prerequisites: EMT - Advanced Paramedic certification or EMT - Intermediate certification.

EMT273AC
Advanced Life Support Refresher Course: Part III
.75 credit .75 period lecture + lab
Designed to meet requirements for EMT-Intermediate and EMT-Paramedic under guidelines of the U.S. Department of Transportation (U.S. DOT), National Registry of EMTs (NREMT) as recognized by the Arizona Department of Health Services (A-DHS) Bureau of Emergency Services (B-EMS). Provides updated knowledge and skills related to communication, medical legal issues, health/safety issues pertaining to pre-hospital care, and assessment and treatment of the trauma victim. Validates requisite knowledge, validates skills, reviews and informs students of new and standards and technologies. Trains and educates out-of-state applicants in knowledge, procedures, medications, and skills specific to Arizona's system. Remediates students who have been unsuccessful three times on the certification examinations, and refreshes information for those who have expired certifications and desire re-entry into the EMS system. 
Prerequisites: EMT - Advanced Paramedic certification or EMT - Intermediate certification.

EMT273AD
Advanced Life Support Refresher Course: Part IV
1 credit 1.25 periods lecture + lab
Designed to meet requirements for EMT-Intermediate and EMT-Paramedic under guidelines of the U.S. Department of Transportation (U.S. DOT), National Registry of EMTs (NREMT) as recognized by the Arizona Department of Health Services (A-DHS) Bureau of Emergency Services (B-EMS). Provides updated knowledge and skills related to the assessment and treatment of the neonatal and pediatric patient. Validates requisite knowledge, validates skills, reviews and informs students of new standards and technologies. Trains and educates out-of-state applicants in knowledge, procedures, medications, and skills specific to Arizona's system. Remediates students who have been unsuccessful three times on the certification examinations, and refreshes information for those who have expired certifications and desire re-entry into the EMS system. 
Prerequisites: EMT - Advanced Paramedic certification or EMT - Intermediate certification.

NOTE: The student must complete course placement for English placement in order to register for some ENG courses. Consult Academic Advisement.

ENG061
Basic Writing Skills
3 credits 3 periods lecture
Emphasis on basic writing skills, including grammar and mechanics necessary to write clear and correct sentences in paragraphs. 
Prerequisites: Appropriate English placement test score, or ENG056 with a grade of "C" or better, or permission of department/division chair.

ENG071
Fundamentals of Writing
3 credits 3 periods lecture
Emphasis on the fundamentals of sentence, paragraph, and multi-paragraph structure. 
Prerequisites: Appropriate English placement test score, or ENG056 with a grade of "C" or better, or ENG061 with a grade of "C" or better, or permission of department/division chair.
ENG100A
American-English Spelling System
1 credit 1 period lecture
American-English spelling system rules, mnemonic devices. Prerequisites:
Appropriate English placement test score, or a grade of "C" or better in ESL040, or (ESL040AA, ESL040AB, and ESL040AC), or ENG071, or permission of instructor.

ENG100AC
The Mechanics of Written English
1 credit 1 period lecture
Review of the mechanics of written English, including punctuation, arbitrary marks and usages, capitalization, agreement, tense, and sentence patterns. Prerequisites: Appropriate English placement test score, or a grade of "C" or better in ESL040, or (ESL040AA, ESL040AB, and ESL040AC), or ENG071, or permission of instructor.

ENG101
First-Year Composition
3 credits 3 periods lecture
Standard English writing skills. Emphasis on expository composition. Prerequisites: Appropriate English placement test score, or "C" or better in ENG071. Note: Course changes not available at time of printing. Consult with Academic Advisement.

ENG102
First-Year Composition
3 credits 3 periods lecture
Continued development of standard English writing skills. Introduction to research, note taking, organization, and documentation in the preparation and writing of a research paper. Prerequisites: ENG101 with a grade of "C" or better. Note: Course changes not available at time of printing. Consult with Academic Advisement.

ENG107
First-Year Composition for ESL
3 credits 3 periods lecture
Equivalent of ENG101 for students of English as a Second Language (ESL). Standard American English writing skills and emphasis on expository composition. Prerequisites: Appropriate ASSET/COMPASS placement test score, or a grade of "C" or better in ESL071 or ESL077. Course Note: Taking ESL040 and ESL042 may build skills tested by the ASSET/COMPASS placement.

ENG108
First-Year Composition for ESL
3 credits 3 periods lecture
Equivalent of ENG102 for students of English as a Second Language (ESL). Continued development of standard English writing skills. Introduction to research, note taking, organization and documentation in the preparation and writing of a research paper. Not open to students who have completed ENG101. Prerequisites: Grade of "C" or better in ENG107.

ENG111
Technical Writing
3 credits 3 periods lecture
Analysis, planning, organization, research, and writing of technical reports and oral presentations for specific job-related audiences. Preparation of recommendation and feasibility reports, proposals, and applications of graphics in documents and oral presentations. Prerequisites: ENG101 with a grade of "C" or better, or permission of instructor.

ENG120
Reading and Writing About Literature
3 credits 3 periods lecture
Emphasis on critical analysis of various genres of literature; includes study of necessary terminology, introduction to methods of literary criticism, and practice in interpretation and evaluation. Prerequisites: ENG102.

ENG200
Life Stories
3 credits 3 periods lecture
Uses of biography and autobiography to pass on stories, hand down traditions, and share wisdom. Analysis and practice of biographical and autobiographical writing. Prerequisites: ENG101 and ENG102.

ENG217
Personal and Exploratory Writing
3 credits 3 periods lecture (Fall only)
Using writing to explore one's self and the world one lives in; emphasis on expository writing as a means of learning. Prerequisites: ENG101 and ENG102. Note: Course changes not available at time of printing. Consult with Academic Advisement.

ENG219
Magazine Article Writing
3 credits 3 periods lecture
Basic skills and techniques used by professional writers for publication in magazines. Includes analyzing markets, identifying article slant, writing query letters, research techniques, editing, and submission procedures. Emphasis on nonfiction. Prerequisites: None.

ENH – English Humanities

ENH110
Introduction to Literature
3 credits 3 periods lecture
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.

ENH111
Literature and the American Experience
3 credits 3 periods lecture
Introduction to the foundations and diversity of American culture through a survey of its literature, including minority and women writers. Exploration of various facets of American culture including frontier, regional, rural, and urban life; ethnic, racial, and immigrant experience; and political and social philosophies. Prerequisites: None.
ENH112
Chicano Literature
3 credits 3 periods lecture
Introduction to the works of Mexican-American writers of the southwest. Samples poetry, fiction, and essays viewed in their relationship to American cultural heritage and to contemporary culture. Prerequisites: None.

ENH114
African-American Literature
3 credits 3 periods lecture
Survey of major African-American writers from Colonial period through the present; analysis of trends and movements within African-American literary history; analysis of literary types and selected works. Prerequisites: None.

ENH117
Rap Literature: The Oral Tradition
3 credits 3 periods lecture
Survey of selected rap poetry looking at the oral tradition of Africa, the Caribbean, and the United States as precursors to East Coast, West Coast, Southern, North Central, and International development of the genre. Investigation of cultural environments, historical events, competitions (the "battles"), artists' biographies, and parallel art forms as they relate to the analysis of the genre and its themes. Prerequisites: None.

ENH204
Introduction to Contemporary Literature
3 credits 3 periods lecture
Survey of poetry, fiction, and drama from 1945 to the present. Prerequisites: None.

ENH214
Poetry Study
3 credits 3 periods lecture (Spring only)
Involves reading, discussing, and analyzing poetry of various forms and from selected periods. Prerequisites: None.

ENH221
Survey of English Literature Before 1800
3 credits 3 periods lecture (Fall only)
Emphasizes the social and political backgrounds as well as the form and content of English literature from Anglo-Saxon times to the end of the eighteenth century. Prerequisites: (ENG101 or ENG107) or equivalent.

ENH222
Survey of English Literature After 1800
3 credits 3 periods lecture (Spring only)
Emphasizes the social and political backgrounds as well as the form and content of English literature in the nineteenth and twentieth centuries. Prerequisites: (ENG101 or ENG107) or equivalent.

ENH230
Introduction to Shakespeare
3 credits 3 periods lecture
Introduces Shakespeare the playwright, the sonneteer, the linguist, and the citizen of the 17th century. Considers the major tragedies, comedies, histories, and sonnets; focuses on the use of language; and connects the writer to the time. Some emphasis on Shakespeare's influence through the centuries, noting parallels between the late 16th century and the late 20th century. Prerequisites: None.

ENH235
Survey of Gothic Literature
3 credits 3 periods lecture
A study of the origins, common elements and characteristics, and historical development of Gothic literature with an exploration of the literary techniques and psychological aspects of the genre. Prerequisites: None.

ENH241
American Literature Before 1860
3 credits 3 periods lecture (Fall only)
Includes literature written prior to 1860 in the United States. Prerequisites: None.

ENH242
American Literature After 1860
3 credits 3 periods lecture (Spring only)
Includes literature written after 1860 in the United States. Prerequisites: None.

ENH250
Classical Backgrounds in Literature
3 credits 3 periods lecture
Introduction to selected readings of Greek and Latin literature in translation and to the key elements as integral aspects of Western culture through successive ages. Prerequisites: None.

ENH251
Mythology
3 credits 3 periods lecture
Deals with the myths and legends of civilizations with the greatest influence upon the development of the literature and culture of the English speaking people, and compares those myths with myths from other cultures. Prerequisites: None.

ENH254
Literature and Film
3 credits 3 periods lecture
Presents works of literature and their film versions and analyzes distinguishing techniques of each medium. Prerequisites: ENG101, or ENG107, or equivalent.

ENH256
Shakespeare on Film
3 credits 3 periods lecture
Presents cinematic versions of Shakespeare's plays and explains and analyzes how the dramatist's major tragedies, comedies, histories and romances have been presented on film. Prerequisites: None.

ENH259
American Indian Literature
3 credits 3 periods lecture
Contemporary American Indian forms of literary expression. Selected oral traditions of American Indians. Trends and movements within American Indian literary history. Prerequisites: None.
ENH260
Literature of the Southwest
3 credits 3 periods lecture
Investigates major themes in Southwestern American literature including the Western myth, minority roles in the region's literature, control of nature versus primacy of nature, and growth. Both prose and poetry are examined with an emphasis on contemporary Southwestern writing. Prerequisites: None.

ENH/AIS/WST261
Native Women's Literature: The Americas
3 credits 3 periods lecture
Explores contemporary native women's (indigenous to the Americas) literature. Selected literature (oral tradition, poetry, fiction, nonfiction, and drama) focuses on themes relevant to native women. Examines the trends and movements within American Indian and women's literary history. Prerequisites: ENG101.

ENH275
Modern Fiction
3 credits 3 periods
Includes novels and short stories of modern writers which reflect significant themes of our time. Prerequisites: None.

ENH/WST285
Contemporary Women Writers
3 credits 3 periods lecture
Explores twentieth century literature (short stories, essays, plays, and poetry) written by women and about women. Focus on themes relevant to women's lives regardless of age, creed, or ethnic background. Prerequisites: None.

ENH/EDU291
Children's Literature
3 credits 3 periods lecture
Review of folk and modern literature, including application of literary criteria to folk and modern literature for children. Prerequisites: None.

EPS–Entrepreneurial Studies
EPS102
Rich Dad's CASHFLOW
2 credits 2 periods lecture
Principles, processes, and tools that represent a new paradigm for financial literacy. Concepts and principles based upon Rich Dad Poor Dad, Cashflow Quadrant, and the Cashflow © 101 game. Prerequisites: None.

ESL – English As a Second Language

ESL001
Basic English as a Second Language I
6 credits 6 periods lecture
Listening, speaking, reading, and writing in English at a basic level. Focus on survival skills related to life in the United States. Introduction to elementary grammatical patterns. Prerequisites: None. Course Notes: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of twelve (12) credits.

ESL001AA
Basic English as a Second Language I: Personal Health
1 credit 1 period lecture
Listening, speaking, reading and writing in English at a basic level. Focus on survival skills related to personal health when living in the United States. Introduction to elementary grammatical patterns. Prerequisites: None. Course Notes: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of two (2) credits.

ESL001AB
Basic English as a Second Language I: Safety
1 credit 1 period lecture
Listening, speaking, reading and writing in English at a basic level. Focus on survival skills related to personal safety when living in the United States. Introduction to elementary grammatical patterns. Prerequisites: ESL001AA or permission of instructor. Course Notes: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of two (2) credits.

ESL001AC
Basic English as a Second Language I: Services
1 credit 1 period lecture
Listening, speaking, reading and writing in English at a basic level. Focus on survival skills relating to services when living in the United States. Introduction to elementary grammatical patterns. Prerequisites: ESL001AB or ESL001BA, or permission of instructor. Course Notes: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of two (2) credits.

ESL001AD
Basic English as a Second Language I: Employment
1 credit 1 period lecture
Listening, speaking, reading and writing in English at a basic level. Focus on survival skills related to employment when living in the United States. Introduction to elementary grammatical patterns. Prerequisites: ESL001AC, or ESL001CA, or permission of instructor. Course Notes: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of two (2) credits.

ESL001AE
Basic English as a Second Language I: Shopping
1 credit 1 period lecture
Listening, speaking, reading and writing in English at a basic level. Focus on survival skills related to shopping when living in the United States. Introduction to elementary grammatical patterns. Prerequisites: ESL001AD, or ESL001BB, or permission of instructor. Course Notes: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of two (2) credits.

ESL001AF
Basic English as a Second Language I: Everyday Life
1 credit 1 period lecture
Listening, speaking, reading and writing in English at a basic level. Focus on survival skills related to everyday life when living in the United States. Introduction to elementary grammatical patterns. Prerequisites: ESL001AE, or permission of instructor. Course Notes: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of two (2) credits.

ESL001BA
Basic ESL I: Personal Health & Safety
2 credits 2 periods lecture
Listening, speaking, reading and writing in English at a basic level. Focus on survival skills related to personal health and safety when living in the United States. Introduction to elementary grammatical patterns. Prerequisites: None. Course Notes: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of four (4) credits.
ESL001BB
Basic ESL I: Services & Employment
2 credits 2 periods lecture
Listening, speaking, reading and writing in English at a basic level. Focus on survival skills related to services and employment when living in the United States. Introduction to elementary grammatical patterns. Prerequisites: ESL001BA or permission of instructor. Course Notes: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of four (4) credits.

ESL001BC
Basic ESL I: Shopping & Everyday Life
2 credits 2 periods lecture
Listening, speaking, reading and writing in English at a basic level. Focus on survival skills related to shopping and everyday life when living in the United States. Introduction to elementary grammatical patterns. Prerequisites: ESL001BB or permission of instructor. Course Notes: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of four (4) credits.

ESL001CA
Basic English as a Second Language I: Part I
3 credits 3 periods lecture
Listening, speaking, reading, and writing in English at a basic level. Focus on survival skills related to life in the United States. Introduction to elementary grammatical patterns. Prerequisites: None. Course Note: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of six (6) credits.

ESL001CB
Basic English as a Second Language I: Part II
3 credits 3 periods lecture
Listening, speaking, reading, and writing in English at a basic level. Focus on survival skills related to life in the United States. Introduction to elementary grammatical patterns. Prerequisites: (ESL001CA or ESL001AC) or equivalent, or permission of instructor. Course Note: Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. May be repeated for a total of six (6) credits.
ESL020
English as a Second Language II: Grammar
3 credits 3 periods lecture
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 & Speaking
3 credits 3 periods lecture
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.

ESL023
Vocabulary for ESL II
1 credit 1 period lecture
Emphasis on the acquisition of basic English vocabulary including identifying and pronouncing words related to people, medical/dental care, occupations and other activities. May be repeated for a maximum of two (2) credits. **Prerequisites:** Appropriate ESL placement test score or permission of instructor.

ESL030
English as a Second Language III: Grammar
3 credits 3 periods lecture
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 & Speaking
3 credits 3 periods lecture
Emphasis on listening and speaking skills related primarily to academic environment. Asking questions, working in small groups, using college resources, informal oral presentation. May be repeated for a maximum of six (6) credits. **Prerequisites:** Appropriate ESL placement test score or ESL021 or ESL022 or RDG020.

ESL033
Vocabulary for ESL III
1 credit 1 period lecture
Emphasis on the acquisition of basic English vocabulary including identifying and pronouncing words related to people, medical/dental care, occupations and other activities. May be repeated for a maximum of two (2) credits. **Prerequisites:** Appropriate ESL placement test score or permission of instructor.

ESL040
English as a Second Language IV: Grammar
3 credits 3 periods lecture
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 "C" or better in ESL030, or (ESL030AA, ESL030AB, and ESL030AC).

ESL043
Vocabulary for ESL IV
1 credit 1 period lecture
Emphasis on the acquisition of basic English vocabulary including identifying and pronouncing words related to people, medical/dental care, occupations and other activities. May be repeated for a maximum of two (2) credits. **Prerequisites:** Appropriate ESL placement test score or permission of instructor.

ESL050
Review Grammar For ESL
3 credits 3 periods lecture
Review of grammatical concepts for ESL students who have some previous experience in reading and writing English. Appropriate for students who want to practice sentence skills in English. May be repeated for a total of six (6) credits. **Prerequisites:** Appropriate ESL placement test score, or a grade of "C" or better in ESL010, or (ESL010AA, ESL010AB, and ESL010AC), or permission of instructor.

ESL050AA
Basic Review Grammar For ESL
1 credit 1 period lecture
Review of the use of English verbs and word placement in sentences for ESL 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 two (2) credits. **Prerequisites:** Appropriate ESL placement test score, or a grade of "C" or better in ESL010, or (ESL010AA, ESL010AB, and ESL010AC), or permission of instructor.

ESL050AB
Intermediate Review Grammar For ESL
1 credit 1 period lecture
Review of auxiliary verbs and the comparative and superlative for ESL 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 two (2) credits. **Prerequisites:** Appropriate ESL placement test score, or a grade of "C" or better in ESL020, or (ESL020AA, ESL020AB, and ESL020AC), or permission of instructor.
ESL051
Pronunciation Improvement for ESL Speakers
3 credits 3 periods lecture
Individualized pronunciation practice and drills in English as a Second Language (ESL) speakers. May be repeated for a maximum of two (2) credits. Prerequisites: None.

ESL051AA
Pronunciation Improvement for ESL Speakers: Vowels
1 credit 1 period lecture
Individualized pronunciation practice and drills in English vowel sounds for ESL speakers. May be repeated for a maximum of two (2) credits. Prerequisites: None.

ESL051AB
Pronunciation Improvement for ESL Speakers: Consonants
1 credit 1 period lecture
Individualized pronunciation practice and drills in English consonant sounds for ESL speakers. May be repeated for a maximum of two (2) credits. Prerequisites: None.

ESL054A
U.S. Culture: History
1 credit 1 period lecture
Reading and writing about American history. Appropriate for students enrolled in ENG010 or higher level ESL courses. May be repeated for a total of two (2) credits. Prerequisites: Appropriate ESL placement test score, or a grade of "C" or better in ESL010, or ESL010AA, ESL010AB, and ESL010AC), or permission of instructor.

ESL054AA
U.S. Culture: History
3 credits 3 periods lecture
Reading and writing about American history. Appropriate for students enrolled in ENG010 or higher level ESL courses. May be repeated for a total of two (2) credits. Prerequisites: Appropriate ESL placement test score, or a grade of "C" or better in ESL010, or ESL010AA, ESL010AB, and ESL010AC), or permission of instructor.

ESL067
Basic Writing Skills for English as a Second Language
3 credits 3 periods lecture
Emphasis on correct editing, writing of correctly structured sentences, paragraphs, and short essays using correct, clear, and idiomatic English. Prerequisites: Appropriate ESL placement test score, or ESL040, or ESL042, or permission of department chair.

ESL077
Fundamentals of Writing English as a Second Language
3 credits 3 periods lecture
Emphasis on writing paragraphs and short essays using correct, idiomatic English. Prerequisites: Appropriate ESL placement test score, or ESL040, or ESL056, or ESL061, or ESL042, or ESL067, or permission of department chair.

FON100
Introductory Nutrition
3 credits 3 periods lecture
Basic nutrition concepts for health and fitness. Emphasizes current dietary recommendations for maximizing well-being and minimizing risk of chronic disease. Focuses on use of tables, food guides, and guidelines for making healthy food choices. Includes unique nutrition needs for selected stages of the lifecycle, methods for evaluating credibility of nutrition claims, principles of vegetarian nutrition, safe and economic use of supplements, principles of energy balance, basic elements of food safety, diet for exercise and sports, and personal dietary evaluation techniques. Not for predietetics or selected other preprofessional majors. May not be taken for credit if credit has been earned in FON100AA and/or FON100AC. Prerequisites: None.

FON104
Certification in Food Service Safety & Sanitation
1 credit 1 period lecture
Preparation for and certification in a national food sanitation and safety program. Emphasis on food from purchasing, receiving, and storing to preparation, holding, and serving. Focuses on safe and sanitary food service facilities and equipment, employee habits and personal hygiene, and role of management in safety and sanitation. Includes time-temperature principles, foodborne illnesses, pest control, accident prevention, standards for cleaning and sanitizing, and regional regulations and standards. Prerequisites: None.

FON118
Commercial Baking Techniques
3 credits 5 periods lecture + lab
Emphasis on practical experiences in a commercial bakery. Includes breads, cakes, pies, pastry, cookies, fillings, and icings. Emphasis on practical experiences in a commercial bakery. Prerequisites: None.

FON122
Principles of Food and Beverage Service
3 credits 3 periods lecture
Qualities and skills necessary for successful food and beverage service. Includes room planning and setup, duties of service staff, types of service, customer relations, dining room etiquette, and cash management. Prerequisites: None.

FON124
Customer Service Practicum
4 credits 11 periods lecture + lab
Practical experience in a commercial food service operation. Focuses on food server, host/hostess, cashier, and busperson. Includes beverage preparation, application of sanitation, and safety concepts. Stresses professionalism in service, demeanor, and appearance. Prerequisites: FON104.
FON124AA  
Customer Service Practicum  
1 credit 4 periods lecture + lab  
Professional food and beverage experience in a commercial food service operation. Focuses on food server, host/hostess cashier, busperson. Includes beverage preparation, application of sanitation and safety concepts. Stresses professionalism in service, demeanor, and appearance.  
Prerequisites: FON104.

FON142AB  
Applied Food Principles  
3 credits 5 periods lecture + lab  
Exploration and application of scientific principles involved in food preparation; experiences with basic cooking methods; emphasis on the rationale of cooking techniques.  
Prerequisites: None.

FON150  
Banquet Food & Beverage Service Externship  
1 credit 5 periods lab  
(Not offered every semester)  
Waiter/waitress serving experiences in a banquet setting; includes instructor-assisted placement, orientation, job seeking skills, and working a minimum of four banquets or twenty-four hours in banquet service. Professional appearance and attire required.  
Prerequisites: FON104, FON122, and FON124.

FON179  
Garde Manger  
3 credits 5 periods lecture + lab  
(Not offered every semester)  
Prepares students for employment in garde manger pantry positions in restaurants and resorts. Includes costing out and ordering food products; food and safety factors; preparing and garnishing pantry product. Emphasis on classical food presentation.  
Prerequisites: None.

FON180  
Principles and Skills for Professional Cooking  
3 credits 5 periods lecture + lab  
Introductory principles and skills for professional cooking. Introduces organizational structure of kitchen staff in different types of kitchens. Includes basic principles of safety and sanitation, equipment and utensil use, French cooking terms, recipe use, measuring techniques, identification and use of seasoning agents, and basic cooking methods applied to stocks, sauces and soups, vegetables, starchy items, entrées and eggs. Emphasis on practical experience in a commercial kitchen.  
Prerequisites: None.

FON181  
French Cuisine  
3 credits 5 periods lecture + lab  
Prerequisites: None.

FON182  
American Regional Cuisine  
3 credits 5 periods lecture + lab  
American regional food preparation applied to restaurants. Review principles of sanitation and safety. Explores history and customs, serving styles, and preparation techniques of foods unique to selected American regions. Emphasis on practical cooking experiences in a restaurant setting. American regions to include, but not limited to: Southern, Cajun/Creole, New England, Mid-West, and Pacific Coast.  
Prerequisites: None.

FON183  
International Cuisine  
3 credits 5 periods lecture + lab  
(Not offered every semester) Gourmet international food preparation applied to restaurants. Review principles of sanitation and safety. Explores history and customs, serving styles, and preparation techniques of foods unique to selected international cultures. Emphasis on practical cooking experiences in a restaurant kitchen. Cultures to include, but not limited to: Italian, German, Oriental, Middle Eastern, and Spanish.  
Prerequisites: None.

FON184  
Pacific Rim Cuisine  
3 credits 5 periods lecture + lab  
Local and gourmet Pacific Rim food preparation applied to restaurants. Overview of principles of sanitation and safety. Explores history and customs, serving styles, and preparation techniques of foods unique to Pacific Rim cultures. Emphasis on practical cooking experiences in a restaurant kitchen. Cultures to include, but not limited to: Chinese, Japanese, Thai, Korean, and South Pacific islands.  
Prerequisites: None.

FON190  
Professional Cooking Practicum  
7 credits 19 periods lecture + lab  
Preparation of hot and cold foods in a commercial food service operation; experience in volume food production preparing salads, soups, stocks, sauces, entrées, starchy items, and vegetables; designed to develop knowledge and skills necessary to cook in a variety of commercial kitchens.  
Prerequisites: FON104, FON180, or departmental approval.

FON190AA  
Professional Cooking Practicum  
1 credit 3 periods lecture + lab  
Preparation of hot and cold foods in a commercial food service operation; experience in volume food production preparing salads, soups, stocks, sauces, entrées, starchy items, and vegetables; designed to develop knowledge and skills necessary to cook in a variety of commercial kitchens. Must be repeated for a total of seven (7) credits.  
Prerequisites: FON104, FON180, or departmental approval.

For additional information on PC program competencies, visit:  
http://www.dist.maricopa.edu/academic/curric/progpc.php

For additional information on MCCCQ course competencies, visit:  
http://www.dist.maricopa.edu/academic/curric/cs.php
FON202 Purchasing for Food Service Systems
3 credits 3 periods lecture
(Not offered every semester)
Food purchasing for institutions: cost factors, quality standards, purchasing practices and controls. Prerequisites: None.

FON206 Food Service Management
3 credits 3 periods lecture
(Not offered every semester)
Administrative procedures and personnel relationships: Management of materials, costs, record keeping and legal aspects of food and beverage service operations. Prerequisites: None.

FON218 Commercial Baking: Classical Desserts
3 credits 5 periods lecture + lab
(Not offered every semester)
Advanced principles and techniques in commercial baking and dessert preparation. Focus on fine pastries with European flair and on desserts served in better hotels, restaurants, and resorts. Preparation of macaroons, tarts, puff pastries, specialty cakes, and desserts such as Bavarian creams, mousses, custards, souffles, crepe desserts, and flammeries. Preparation and use of sauces, techniques for using nuts and chocolate, and exploration of new recipes. Prerequisites: None.

FON219 Buffet Catering
3 credits 5 periods lecture + lab
Focuses on the basic steps of the catering process in a commercial food setting. Includes an overview of safety and sanitation principles. Emphasizes practical experiences in booking and record keeping, function planning, ordering, production, and service set-up and breakdown for both in-house and off-premise catered events. Prerequisites: None. Corequisite: FON104.

FON241 Principles of Human Nutrition
3 credits 3 periods lecture
Scientific principles of human nutrition. Emphasis on health promotion and concepts for conveying accurate nutrition information in a professional setting. Addresses therapeutic nutrition principles for treatment of common health conditions. Includes exploration of food sources of nutrients, basic metabolism of nutrients in the human body, relationship between diet and other lifestyle factors, use of supplements, current recommendations for food selection throughout the life cycle, and use of nutrition tools for planning food intake or assessment of nutritional status. Prerequisites or Corequisites: One year high school chemistry with grade of "C" or better, or CHM130 and CHM130LL, or BIO100, or BIO156, or BIO181, or approval of instructor.

FON271AA Culinary Studies Internship
1 credit 5 periods lab
Work experience preparing hot and cold foods in a commercial food service operation, experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables. Five (5) hours of work weekly. Supervision and evaluation by an internship coordinator. May be repeated for a total of seven (7) credits. Prerequisites: FON271AA, or six (6) [FON271AB, AC] credits. Prerequisites: FON104, FON180, and departmental approval.

FON271AB: Ten (10) hours of work
2 credits 10 periods lab
FON271AC: Fifteen (15) hours of work
3 credits 15 periods lab
FRE - French

FRE085A
Speedy French I
1 credit 1 period lecture
Basic vocabulary and grammar to develop conversational skills in French. Prerequisites: None.

FRE085AB
Speedy French II
1 credit 1 period lecture
Intermediate vocabulary and grammar to develop conversational skills in French. Prerequisites: FRE085AA.

FRE085AC
Speedy French III
1 credit 1 period lecture
Advanced vocabulary and grammar to develop conversational skills in French. Prerequisites: FRE085AB.

FRE101
Elementary French I
4 credits 4 periods lecture
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
4 credits 4 periods lecture
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.

FRE115
Beginning French Conversation I
3 credits 3 periods lecture
Conversational French. Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in French. Designed for students seeking speaking and listening abilities with little emphasis on grammar. Prerequisites: None.

FRE116
Beginning French Conversation II
3 credits 3 periods lecture
A continuation of FRE115. Continued development of speaking and listening skills for effective communication in French. Prerequisites: FRE115 or equivalent.

FRE201
Intermediate French I
4 credits 4 periods lecture
Review of essential grammar of the French language and study of French culture. Continued practice and development of reading, writing, and speaking skills. Prerequisites: FRE102 with a grade of "C" or better, two years of high school French with an average of "C" or better, or departmental approval.

FRE202
Intermediate French II
4 credits 4 periods lecture
Review of grammar, continued development of French language skills, and continued study of the French culture. Prerequisites: FRE201 with a grade of "C" or better or three years of high school French with an average of "C" or better.

FRE203
Advanced Conversational French
4 credits 5 periods lecture + lab
Explores new vocabulary with student's knowledge of basic grammatical patterns to build confidence and competence in speaking French in everyday, culturally oriented situations. Develops listening and speaking skills for rapid everyday conversational exchange in French. Prerequisites: FRE201, or FRE202, or FRE225, or FRE226, or permission of instructor.

FRE266
Advanced French II
3 credits 3 periods lecture
Continuation of FRE265. Reading selections from French literature, written reports, and discussions in French. Prerequisites: FRE202 or departmental approval.

FSC - Fire Science Technology

FSC101
Intro to Fire Service Selection
3 credits 4 periods lecture + lab
Overview of the application and selection processes utilized by various fire departments and fire service organizations. Elements of fire service culture and their effects on personal growth and interpersonal relationships. Major components of written application processes, requirements, preparation of resumes and their effect on employment prospects. Preparation for the interview to include communications skills, mental preparation techniques, behaviors, and the importance of the interview in the pre-employment process. Preparation for in-service training at a fire station. General components of the selection process, the importance of general education, and components of life learning in career choices. Prerequisites: None.

FSC102
Fire Department Operations
11 credits 19.6 periods lecture + lab
Introductory fire science course primarily designed for the fire department recruit. Includes firefighting skills, equipment, and administrative policies, fire department operations, personnel policies, and International Fire Service Accreditation Congress Practical Skills Testing. Prerequisites: (EMT104, FSC105 and FSC130) and permission of instructor. Corequisites: FSC134.
FSC/EMT104
Basic Emergency Medical Technology
3 credits 3 periods lecture + lab
Techniques of emergency medical care in accordance with national and state curriculum. Study of the human body, patient assessment, treatment of medically or traumatically compromised patients, special hazards, and medical operations. IV monitoring, Sudden Infant Death Syndrome (SIDS), patient-assisted medication administration, automated external defibrillators, and blood-glucose monitoring. Includes participation in two eight-hour clinical rotations through a local emergency department scheduled during the semester outside normal class hours. Requires personal pocket mask, stethoscope, pen light, and trauma scissors. Prerequisites: Must be at least 18 years of age prior to applying to the BLS (Basic Life Support) Training Program per Arizona Revised Statutes, and must have a current Cardiac Pulmonary Resuscitation certification from the American Heart Association, American Red Cross, or other equivalent organization at the Healthcare Provider Level, meeting the new Guidelines 2002. Minimum ninth grade level reading proficiency on the Nelson-Denney Examination or equivalent. Proof of TB testing or chest x-ray with a negative result within 6 months prior to application; immunity to rubella (German measles) and rubeola.

FSC105
Hazardous Materials/First Responder
3 credits 3 periods lecture
Basic methods of recognition and identification based upon the chemical and physical properties of hazardous materials; basic safety procedures when utilizing specific types of protective clothing and equipment; basic tactical information relating to scene management. Confined space operations in accordance with the National Fire Protection Agency. Prerequisites: None.

FSC106
Introduction to Fire Protection
3 credits 3 periods lecture
History and evaluation of fire department organization. Role of the fire service in the community. Responsibilities of the fire administrator including organization, departmental functions, interdepartmental relationships, management of buildings and equipment; techniques of firefighting. Also includes emergency medical services and fire prevention. Prerequisites: None.

FSC108
Fundamentals of Fire Prevention
3 credits 3 periods lecture
Fundamentals of fire prevention. Includes techniques, procedures, regulations, and enforcement. Also includes discussion of hazards in ordinary and special occupancies. Field trips and lectures from industry also included. Prerequisites: None.

FSC113
Introduction to Fire Suppression
3 credits 3 periods lecture
Characteristics and behavior of fire, fire hazard properties of ordinary materials, extinguishing agents, fire suppression organization and equipment, basic firefighting tactics, and public relations as affected by fire suppression. Prerequisites: None.

FSC114
Hazardous Materials First on the Scene/Awareness Level
0.5 credit 0.5 period lecture
Designed to assist first responders involved in potential hazardous materials incident. Provides an overview of capabilities and limitations of first responders in the recognition and detection of hazardous materials, safety considerations, and pre-emergency planning. Prerequisites: None.

FSC116
Emergency Medical Communications (EMD)
1.5 credits 1.8 periods lecture + lab
Designed to educate and train individuals as the emergency link among the community, health care providers, and law enforcement agencies. Comprehensive program to educate and train in procedures of communications, interrogation, assessment, and deployment. Includes interactive computer lab and scheduled observation with assignment at a dispatch center. Prerequisites or Corequisites: EMT101 or HLR101 or any current American Red Cross, CPR for the Professional Rescuer, or American Heart Association Basic Life Support Health Care Provider validation.

FSC117
Fire Apparatus
3 credits 3 periods lecture
Principles of care, maintenance, and operation of fire apparatus and pumps. Includes pump construction and accessories, pumping techniques, power development, and transmission. Driving, troubleshooting, and producing effective fire streams. Prerequisites: None.

FSC118
Fire Hydraulics
3 credits 3 periods lecture
Review of basic mathematics. Hydraulic laws and formulas as applied to the fire service. Application of formulas and mental calculations to hydraulic problems, water supply variables, and discharge requirements for pumps. Prerequisites: None.

FSC126
Refresher Training for Hazardous Materials First Responder Operational
1 credit 1 period lecture + lab
Review of fundamentals of containment, prevention, and knowledge of basic hazard and risk assessment techniques. Topics include protective clothing, containing and controlling specific hazards, vapor suppression, and cooling of tanks. Meets the requirements of Department of Labor Part III; Occupational Safety and Health Waste Operational and Emergency Response; Final Rule March 6, 1989 governing Refresher Training. Prerequisites: FSC105.
FSC131
Introduction to Urban Technical Rescue
3 credits 3 periods lecture + lab
Practical application of safe rescue practices for urban technical rescue. Includes ropes and rope systems, trench rescue, confined-space rescue, swiftwater rescue, and rescue from collapsed structures. Prerequisites: None.

FSC134
Fitness and Conditioning for Firefighters
3 credits 4.6 periods lecture + lab
Overview of all aspects of fitness for current and prospective firefighters. Includes mental aspects of performance for optimal achievement on fire department agility tests and firefighting tasks; physical fitness and workout techniques as they apply to performing specific firefighting tasks; individual conditioning strategies, nutritional guidelines, and basic exercise principles. Lifelong fitness and conditioning. Prerequisites: None.

FSC/EMT136
Women Firefighter Preparation
2 credits 2.87 periods lecture + lab
Designed for women firefighting candidates. Includes firefighting techniques and procedure, physical/mental conditioning, health concerns, occupational opportunities, and mentorship programs. Prerequisites or Corequisites: FSC134 or permission of instructor.

FSC152
Engine Company Officer
1 credit 1 period lecture
Overview of all aspects of engine company operations including the activities and responsibilities performed by the captain as well as mechanisms for developing a personal supervisory style. Designed for the aspiring company officer or anyone having the opportunity for the role of a company officer. Prerequisites: None.

FSC202
Supervisory Training for Firefighters
3 credits 3 periods lecture
Administrative methods applied to the fire service, departmental organization, and personnel management. Includes fire alarm signaling systems, fire service planning, and relationships with other city departments. Prerequisites: None.

FSC204
Firefighting Tactics and Strategy
3 credits 3 periods lecture
Methods of coordinating personnel, equipment, and apparatus on the fireground. Practical methods of controlling and extinguishing structural and other types of fires. Includes simulation exercises. Prerequisites: FSC113 or permission of instructor or equivalent.

FSC205
Command Strategies for Major Emergencies
3 credits 3 periods lecture
Effectiveness of managing major emergency incidents including multiple alarm structural fires, high rise fires, major brush fires, complex hazardous materials incidents and multi-casualty medical incidents. Includes incidents that require the commitment of resources based on a transitional situation and/or managing the effective interaction between numerous agencies to achieve control. Prerequisites: FSC204.

FSC208
Firefighter Safety and Building Construction
3 credits 3 periods lecture
Actions necessary to provide for the safety of firefighters operating on the fireground. Effects that fire and heat may have on various types of building construction resulting in the loss of structural integrity. Includes signs and symptoms of structural damage. Prerequisites: FSC113 or permission of instructor or equivalent.

FSC209
Fire Investigation
3 credits 3 periods lecture
Methods of determining point of fire origin, path of fire travel, and fire cause. Includes recognizing and preserving evidence; interviewing witnesses; arson laws and types of arson fires; and court testimony, reports, and records. Prerequisites: None.

FSC214
Human Resource Management in Fire Service
3 credits 3 periods lecture
Management of fire service personnel functions. Includes selection procedures, employee discipline, performance ratings, elements of supervision, Labor relations and related personnel responsibilities. Prerequisites: FSC202 or four years in the fire service.

FSC221
Ladder Company Officer
1 credit 1 period lecture
Overview of all aspects of ladder company operations including activities, expectations, and responsibilities required of the ladder captain. Designed for the company officer who aspires to the role of ladder company officer. Prerequisites: None.

FSC/EMT238
Vehicular Extrication & Patient Stabilization
2 credits 2 periods lecture
Participative course designed for the Emergency Medical Technicians (EMT). Incorporates new knowledge and skills necessary to access, extricate, and care for victims of crash incidents. Provides exposure to scene management, including size-up, disentanglement, victim stabilization for single and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures to selected victim scenarios. Prerequisites: Basic EMT certification, current enrollment in EMT Basic program, nurse with emergency department experience, or law enforcement personnel, or permission of instructor.

GBS – General Business

GBS103
Principles of Banking
3 credits 3 periods lecture
History, characteristics and significance of American banking system, includes types of accounts, banking services and the relationship of commercial banks to their depositors. Prerequisites: None.

GBS110
Human Relations in Business and Industry
3 credits 3 periods lecture
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.
GBS114
Principles of Quality Service
3 credits 3 periods lecture
Quality service principles in credit/service industries emphasizing total quality and continuous improvement as a model for change. Identifying/understanding customer requirements, mapping a work process, measuring the amount of change in a process' performance and solving work process problems. Collecting data and data analysis. Prerequisites: None.

GBS131
Business Calculations
3 credits 3 periods lecture
Review of basic arithmetic and application of mathematics to business problems, includes percentage, interest, discount, and markups. Prerequisites: None.

GBS151
Introduction to Business
3 credits 3 periods lecture
Characteristics and activities of current local, national, and international business. An overview of economics, marketing, management and finance. Prerequisites: None.

GBS205
Legal, Ethical, & Regulatory Issues in Business
3 credits 3 periods lecture
Legal theories, ethical issues and regulatory climate affecting business policies and decisions. Prerequisites: None.

GBS220
Quantitative Methods in Business
3 credits 3 periods lecture
Business applications of quantitative optimization methods in operations management decisions. Prerequisites: (Grade of “C” or better in MAT150, MAT151, or MAT152) or equivalent or satisfactory score on District placement exam.

GBS221
Business Statistics
3 credits 3 periods lecture
Business applications of descriptive and inferential statistics measurement of relationships, and statistical process management. Prerequisites: Grade of "C" or better in GBS220 or MAT172.

GBS223
Business Communication
3 credits 3 periods lecture
Internal and external business communications, including verbal and nonverbal techniques. Prerequisites: ENGL101 or ENGL107 with grade of "C" or better, or permission of department/division.

GBS258
Principles of Property and Liability Insurance
3 credits 3 periods lecture
Basic principles of insurance. Introduction to insurance contracts. Overview of company functions and operations including ratemaking, underwriting, claims, adjusting, and marketing. Prerequisites: None.

GBS261
Investments I
3 credits 3 periods lecture
Various investment forms available, including study of inflation, taxation, government securities, stocks and bonds, real estate and retirement plans. Prerequisites: None.

GBS263
Personal Insurance
3 credits 3 periods lecture
Analysis of personal loss exposures and personal insurance coverages including homeowner's, other dwelling coverages, personal liability, auto, life, health, and government programs. Prerequisites: GBS258 or permission of instructor.

GBS264
Commercial Insurance
3 credits 3 periods lecture
Analysis of commercial coverages including property, business income, inland marine, ocean marine, crime, boiler, general liability, auto, and worker's compensation. Analysis of loss exposures and explanation of coverage parts. Prerequisites: GBS258 or permission of instructor.

GBS270AA
Business Internship
1 credit 1 period lab
General business work experience in a business or industry. Eighty hours of designated work per credit per semester. Maximum of 3 credits allowed. Prerequisites: Permission of Department.

GBS270AB
Business Internship
2 credits 2 periods lab
General business work experience in a business or industry. Eighty hours of designated work per credit totaling 160 hours per semester. Maximum of 3 credits allowed. Prerequisites: Permission of Department.

GBS270AC
Business Internship
3 credits 3 periods lab
General business work experience in a business or industry. Eighty hours of designated work per credit totaling 240 hours per semester. Maximum of 3 credits allowed. Prerequisites: Permission of Department.

GBS294
Consumer Credit
3 credits 3 periods lecture
Consumer lending by financial institutions. Prerequisites: None.

GBS298AA-AC
Special Projects
1-3 credits 1-3 periods lab
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment 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.
**GCU – Cultural Geography &
GPH – Physical Geography**

**GCU121**
World Geography I: Eastern Hemisphere
3 credits 3 periods lecture
Description and analysis of areal variations in social, economic, and political phenomena in major world regions. Emphasis on Europe, the former Russia, North Africa, and the Asian world. **Prerequisites:** None.

**GCU122**
World Geography II: Western Hemisphere
3 credits 3 periods lecture
Description and analysis of variations in social, economic, and political phenomena in major world regions. Emphasis on Sub-Saharan Africa, Latin America, and Anglo America. **Prerequisites:** None.

**GPH111**
Introduction to Physical Geography
4 credits 6 periods lecture + lab
Spatial and functional relationships among climates, landforms, soils, water, and plants. **Prerequisites:** None.

**GPH112**
Introduction to Physical Geography
3 credits 3 periods lecture
Spatial and functional relationships among climates, landforms, soils, water, and plants. **Prerequisites:** None.

**GPH113**
Intro to Physical Geography Lab
1 credit 3 periods lab
Laboratory experience in support of GPH112. **Prerequisites or Corequisites:** GPH112.

**GPH219**
Introduction to GIS Using ArcGIS
3 credits 3 periods lecture + lab
An introduction to desktop Geographic Information Systems (GIS) technology using ArcGIS software. **Prerequisites:** CIS105 or CSC180 or permission of instructor.

**GLG – Geology**

**GLG101**
Intro to Geology I - Physical Lecture
3 credits 3 periods lecture
A study of the kind and arrangement of materials composing the earth’s crust and the geological processes at work on and within the earth’s surface. **Prerequisites:** None.

**GLG103**
Intro to Geology I - Physical Lab
1 credit 3 periods lab
May accompany GLG101. Study of common rock-forming minerals, rocks, and maps. **Prerequisites:** None.

**GLG110**
Geologic Disasters & the Environment
3 credits 3 periods lecture
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.

**GLG280**
Geology of Arizona Lecture
3 credits 3 periods lecture
A study of the kind and arrangement of materials composing the earth’s crust and the geological processes at work on and within the earth’s surface. **Prerequisites:** None.

**GLG281**
Geology of Arizona Lab
1 credit 3 periods lab
May accompany GLG280. Examples of specific geologic processes and local areas. May require field trips. **Prerequisites:** None.

**GRK – Greek**

**GRK102**
Elementary Classical Greek II
4 credits 5 periods lecture + lab
Second semester course in classical Greek, emphasis on written structures of the language. Attention placed on classical Greek pronunciation. **Prerequisites:** GRK101 or departmental approval.

**GRN – Gerontology**

**GRN102**
Supervisory Care Services
1.25 credits 1.25 periods lecture
Principles of supervision, including awareness of resident functioning, crisis intervention, and assistance in the self-administration of medications. Provides foundation for provision of supervisory care services in assisted living facilities. **Prerequisites:** None.

**GRN104**
Personal Care Services
2 credits 2 periods lecture
Principles of aging and examination of common medical conditions associated with aging and physical disabilities. Assisting residents in activities of daily living and measuring vital signs. Provides foundation for provision of personal care services in assisted living facilities. Includes experiential learning activities as well as didactics. **Prerequisites:** GRN102 or permission of Program Director.

**GRN104AA**
Personal Care Services for Certified Nursing Assistants
1 credit 1 period lecture
Principles of aging and examination of common medical conditions associated with aging and physical disabilities. Includes medication and treatment components in personal care settings. **Prerequisites:** GRN102, current CNA registration in Arizona, and permission of Program Director. **Course Note:** May not receive credit for both GRN104 and GRN104AA.
GRN106
Directed Care Services
0.75 credit 0.75 periods lecture
Examination of care needs of those unable to direct self-care. Provides foundation for provision of directed care services in assisted living facilities. Involves experiential learning activities as well as didactics. Emphasis on therapeutic techniques. Prerequisites: GRN102 and (GRN104 or GRN104AA), or permission of Program Director.

GRN108
Management of Assisted Living Facilities
0.5 credit 0.5 period lecture
Principles of management and care planning. Includes delegation of authority, development of policies and procedures, and overview of laws and regulations. Provides foundation for management of assisted living facilities. Prerequisites: GRN102, (GRN104 or GRN104AA), and GRN106 or permission of Program Director.

GRN121
Psychosocial Aspects of Aging
3 credits 3 periods lecture
Examination of sociological, psychological, and behavioral health issues associated with aging including death, dying, and bereavement. Incorporates cultural and cohort influences. Considers economic and political issues. Prerequisites: None.

GRN122
Overview of Aging Services
3 credits 3 periods lecture
Description of the organization and structure of the aging services environment including federal, state, and local roles and responsibilities. Explores the field of gerontology including careers and services using on-line information. Prerequisites: None.

GRN123
Health and Biophysical Aspects of Aging
3 credits 3 periods lecture
Examines theories of aging and biological aging processes and accompanying medical conditions. Includes functional health assessment and mental health factors that affect physical health. Focuses on health promotion for older adults. Prerequisites: None.

GRN124
Fundamentals of Service Delivery
3 credits 3 periods lecture
Addresses interpersonal communication and appropriate behavior in the workplace. Emphasis on care/service plans and documentation on legal records. Identification of regulatory agencies. Prerequisites: None.

GRN202
Activity Programming for Aging Services
3 credits 3 periods lecture
Activity program development and implementation in aging services. Particular attention to the programming needs of special populations. Addresses professionalism and credentialing. Prerequisites: None.

GRN226
Alzheimer's Disease and Dementia
3 credits 3 periods lecture
Examination of Alzheimer’s disease and other forms of dementia. Provides the foundation for caregiving. Emphasis on therapeutic techniques. Includes ethical and legal issues. Prerequisites: GRN121, GRN122, GRN123 and GRN124, or permission of Program Director.

GRN230
Therapeutic Environments for Dementia Care
3 credits 3 periods lecture
Design principles for creating a therapeutic environment for dementia care in home and community-based settings as well as other long term care environments. Includes practical application of design principles to reduce difficult behaviors and promote quality of life. Prerequisites: GRN106 or GRN226 or permission of Program Director. Course Note: Appropriate for owners, managers, and caregivers in formal care settings; aging service employees; senior housing designers; informal caregivers; or individuals interested in interior design for special populations.

GRN236
Law and the Elderly
3 credits 3 periods lecture
Addresses legal issues of particular importance to elders including health care decision-making, employment and retirement, and financial planning. Considers federal and state statutory and case law. Prerequisites: (GRN121, GRN122, GRN123, and GRN124), or permission of Program Director.

GRN240
Public Policy and Advocacy
3 credits 3 periods lecture
Overview of public policy as it affects the elderly and aging services. Examination of policies and policy making at federal, state, and local levels. Addresses private sector and citizen involvement. Prerequisites: (GRN121, GRN122, GRN123 and GRN124), or permission of Program Director.

GRN242
Management and Supervision
3 credits 3 periods lecture
Basic principles in the organization and management of aging services. Decision making, personnel management, team building, volunteers, marketing, and customer service. Prerequisites: None.

GRN246
Executive Management and Leadership in Aging Services
3 credits 3 periods lecture
Examines concepts of executive management and leadership in relationship to the aging services environment. Addresses organizational issues, community roles and relationships, public speaking, and personal leadership development. Prerequisites: (GRN121, GRN122, GRN123, and GRN124) or permission of Program Director.

GRN248
Fiscal Management and Fund Development
3 credits 3 periods lecture
Examination of revenue sources and fiscal accountability in the provision of aging services. Provides practice in reading and preparing budgets and an explanation of the audit process. Includes proposal writing and processes for grant administration. Prerequisites: (GRN121, GRN122, GRN123 and GRN124) or permission of Program Director.

GRN248AA
Fiscal Management and Fund Development I
1 credit 1 period lecture
Examination of funding revenue sources in the provision of aging services. Provides practice in reading and interpreting budgets and financial statements. Prerequisites: (GRN121, GRN122, GRN123 and GRN124) or permission of Program Director.
GRN248AB
Fiscal Management and Fund Development II
2 credits 2 periods lecture
Examination of the budgetary process and fiscal accountability in the provision of aging services. Provides practice in preparing and using budgets and an explanation of the audit process. Includes proposal writing and processes for grant administration. Prerequisites: GRN248AA or permission of Program Director.

GRN250AA
Seminar Special Topics in Gerontology
1 credit 1 period lecture
GRN250AB
Seminar Special Topics in Gerontology
2 credits 2 periods lecture
GRN250AC
Seminar Special Topics in Gerontology
3 credits 3 periods lecture
In-depth investigation of a current issue in gerontology. Emphasis on implications for individuals, the elderly, and society at large. Topics vary from semester to semester. Potential topics may include, but are not limited to, ethics, economics, managed care, and spirituality. May be repeated with a change of topic. Prerequisites: None. AC Module Course Note: May be repeated with change of topic.

GRN260
Introduction to Directed Research in Gerontology
2 credits 2 periods lecture
Application of basic principles in planning, execution, analysis, and reporting of a research topic in gerontology. Conducted in cooperation with instructor and/or classmates. May be repeated with a change of topic/application. Prerequisites: GRN121, GRN122, GRN123, GRN124, and permission of Program Director.

GRN270
Caregiving in Assisted Living Facilities
1 credit 3 periods lab
Provides clinical experience for caregivers in assisted living facilities. Application of principles for supervisory, personal, and directed care services. Includes awareness of resident functioning, crisis intervention, assisting with self-administration of medication, activities of daily living, measuring vital signs, and therapeutic communications techniques. Emphasis on Arizona rules and regulations. Prerequisites: (GRN102, GRN104, and GRN226) or (Current CNA license and GRN226) or GRN106.

GRN275AA
Practicum in Gerontology: Elder Care
1 credit 5 periods lab
GRN275AB
Practicum in Gerontology: Elder Care
2 credits 10 periods lab
GRN275AC
Practicum in Gerontology: Elder Care
3 credits 15 periods lab
Field experience in an elder care setting. Details of specific assignment determined by student in consultation with instructor. Provides in-depth experiences in gerontology that cannot be acquired within a classroom. Prerequisites: Permission of Program Director. Course Note: May be repeated for a total of six (6) credits.

GRN275BA
Practicum in Gerontology: Program Development
1 credit 5 periods lab
GRN275BB
Practicum in Gerontology: Program Development
2 credits 10 periods lab
GRN275BC
Practicum in Gerontology: Program Development
3 credits 15 periods lab
Field experience in program development in an aging services setting. Details of specific assignment determined by student in consultation with instructor. Provides in-depth experiences in gerontology that cannot be acquired within a classroom. Prerequisites: Permission of Program Director. Course Note: May be repeated for a total of six (6) credits.

GTC – General Technology

GTC121
Construction Estimating I
3 credits 3 periods lecture
Fundamentals of determining quantities of material, equipment and labor for given project. Includes procedures used in applying proper unit costs to these items. Prerequisites: None.

GTC123
Construction Estimating II
3 credits 3 periods lecture
Details of job estimates. Includes unit cost considerations and subcontracting. Emphasis on bid preparation. Prerequisites: GTC121 or departmental permission.

HEB – Hebrew

HEB101
Elementary Biblical Hebrew I
4 credits 4 periods lecture
Introduction to basic grammar, pronunciation, and vocabulary of the Hebrew language. Emphasis on language skills in listening, speaking, reading, and writing. Study of Hebrew speaking culture. Prerequisites: None.
HCC101
Health Care Today
0.5 credit 0.5 period lecture
Overview of current health care professions, including career and labor market information. Health care delivery system, third party payers, and facility ownership. Health organization structure, patient’s rights and quality of care. Prerequisites: None.

HCC103
Workplace Behavior in Health Care
0.5 credit 0.5 period lecture
Health care and life values. Definition and importance of values and ethics. Work ethic behaviors essential for the health care worker. Professional code of ethics, worker’s rights and responsibilities. Prerequisites: None.

HCC105
Personal Wellness and Safety
0.5 credit 0.5 period lecture
Healthful living practices such as nutrition, stress management, and exercise. Use of principles of body mechanics in daily living activities. OSHA standard precautions. Prerequisites: None.

HCC107
Communication and Teamwork in Health Care Organizations
1 credit 1 period lecture
Emphasis on 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.

HCC/RES109
CPR For Health Care Provider
0.5 credit 0.5 period lecture
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 defibrillator and resuscitation equipment. Prerequisites: None.

HCC130
Fundamentals in Health Care Delivery
3 credits 3 periods lecture
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 workplace and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies. Prerequisites: None.

HCC130AA
Health Care Today
0.5 credit 0.5 period lecture
Overview of current health care professions including career and labor market information. Health care delivery systems, third-party payers, and facility ownership. Health organization structure, patient rights and quality care. Prerequisites: None.

HCC130AB
Workplace Behaviors in Health Care
0.5 credit 0.5 period lecture
Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Prerequisites: None.

HCC130AC
Personal Wellness and Safety
0.5 credit 0.5 period lecture
Introduces healthful living practices to include nutrition, stress management and exercise. Includes Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. Prerequisites: None.

HCC130AD
Communication and Teamwork in Health Care Organizations
0.5 credit 0.5 period lecture
Emphasis on 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.

HCC130AE
Legal Issues in Health Care
0.5 credit 0.5 period lecture
Basic legal terminology used in the health care setting. Legal concepts related to health care employment, medical documentation, and communication. Introduction to regulatory requirements in health care. Prerequisites: None.

HCC130AF
Decision Making in the Health Care Setting
0.5 credit 0.5 period lecture
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.

HCC140
Medical Terminology for Health Care Workers
2 credits 2 periods lecture
Introduction to medical terms used in health care. Body systems approach to common terms related to structures, function, diseases, procedures, and diagnostic tests. Building and analyzing terms using word parts. Includes medical abbreviations and symbols. Prerequisites: HCC101, HCC103, HCC105, HCC107 and HCC109. May be taken concurrently with Level II program pathway courses.

HCC142
Medical Terminology For Specialty Areas
1 credit 1 period lecture
Medical terminology used with special care populations and in special services. Includes obstetric, pediatric, mental health, diagnostic imaging, oncology, and surgery terms. Use of word parts, term spelling and pronunciation. Prerequisites: HCC140.
HCC130
Medical Terminology for Health Care Workers
3 credits 3 periods lecture
Medical terminology used in health care, with special care populations and in special services. Body systems approach to terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using word parts. Medical abbreviations and symbols and term spelling. Prerequisites: None.

HCC146
Common Medical Terminology for Health Care Workers
2 credits 2 periods lecture
Common medical terms used in health care. Body systems approach to terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using word parts. Medical abbreviations and symbols and term spelling. Prerequisites: None.

HCC145
Medical Terminology for Health Care Workers II
1 credit 1 period lecture
Introduction to medical terms used in health care. Body systems approach to selected terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using basic word parts. Selected medical abbreviations and symbols and term spelling. Prerequisites: None.

HCC145AA
Medical Terminology for Health Care Workers III
1 credit 1 period lecture
Medical terminology used with special care populations and in special services. Includes obstetric, pediatric, mental health, diagnostic imaging, oncology, and surgery terms. Use of word parts and term spelling. Prerequisites: HCC145AA and HCC145AB, or HCC146.

HCC145AC
Medical Terminology for Health Care Workers
1 credit 1 period lecture
Medical terminology used in health care. Body systems approach to terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using word parts. Medical abbreviations and symbols and term spelling. Prerequisites: None.

HCC145AB
Medical Terminology for Health Care Workers II
1 credit 1 period lecture
Additional medical terms used in health care. Body systems approach to more detailed terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using standard word parts. Common abbreviations and symbols and term spelling. Prerequisites: HCC145AA.

HCC145
Medical Terminology for Health Care Workers
1 credit 1 period lecture
Medical terms used in health care. Body systems approach to terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using word parts. Medical abbreviations and symbols and term spelling. Prerequisites: None.

HCC145AC
Medical Terminology for Health Care Workers III
1 credit 1 period lecture
Medical terminology used with special care populations and in special services. Includes obstetric, pediatric, mental health, diagnostic imaging, oncology, and surgery terms. Use of word parts and term spelling. Prerequisites: HCC145AA and HCC145AB, or HCC146.

HCC146
Common Medical Terminology for Health Care Workers
2 credits 2 periods lecture
Common medical terms used in health care. Body systems approach to terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using word parts. Medical abbreviations and symbols and term spelling. Prerequisites: None.

HCC151
Legal and Ethical Issues in Health Care
0.5 credit 0.5 period lecture
Basic legal terminology utilized in the health care setting. The basic legal concepts related to health care employment. Identification of ethical guidelines to include client privacy and rights, as well as the process of ethical decision making. Prerequisites: HCC101, HCC103, HCC105, HCC107 and HCC109.

HCC153
Decision Making in the Health Care Setting
0.5 credit 0.5 period lecture
Principles of the decision-making process using the nine-step format and application of the process. Description and application of process improvement and its relationship to the decision-making model. Prerequisites: HCC101, HCC103, HCC105, HCC107 and HCC109.

HCC160
Basic Venipuncture Skills
0.25 credit 0.25 period lab
Equipment required for specimen collection. Laboratory testing abbreviations and codes. Anatomy of the arm and hand. Venous blood collection procedure. Quality assurance measures and tests. Prerequisites: HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE and HCC130AF), or equivalent.

HCC161
Basic Venipuncture Practicum
0.75 credit 0.75 period lab
Application of fundamental phlebotomy techniques in a clinical setting. OSHA guidelines to include infection control, personal safety and first aid. Specimen handling and processing. Venous collection procedures performed on clients. Prerequisites: HCC160.

HCC164
Pharmacology for Allied Health
0.5 credit 0.5 period lecture
Chemical, generic, and trade names for drugs. Use of drug references. Pharmacological principles of drugs. Routes of drug administration. Federal and Arizona regulations. Classification of drugs. Abbreviations and symbols for drug measurement, administration, and prescription. Prerequisites: HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE and HCC130AF), or equivalent.

HCC204
Clinical Pathophysiology
3 credits 3 periods lecture
Causes of disease and their impact on the human body. Common physiologic effects of disease on body systems. Roles of the multidisciplinary health care team in the diagnosis and treatment of disease. Cultural implications in prevention and treatment of disease. Prerequisites: HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE and HCC130AF), or equivalent and (BIO160 or BIO162AB, or BIO201).

HCC208
Health Care Leadership
1 credit 1 period lecture
Introduction to concepts and skills required of health care leaders. Discussion of leadership styles and conflict management. Application of motivation, delegation, and communication techniques to teamwork and leadership. Prerequisites: HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE and HCC130AF), or equivalent.

HCE – Health Care Education

HCE101
Customer and Patient Relations
1.5 credits 1.5 periods lecture
Basic interpersonal behavior principles in the health care setting. Emphasis on interpersonal behavior and mental health concepts. Examines management perspective and self-management skills. Prerequisites: None.

HCE102
Orientation to the Physiology and Psychology of Body Systems
1 credit 1 period lecture
Application of basic physiology and psychology of body systems as they relate to an entry-level health care professional’s role. Prerequisites: HCC130, HCC145 or (HCC145AA, HCC145AB, and HCC145AC), or permission of instructor.
HCE108
Basic Phlebotomy: Training for Law Enforcement Officers
1 credit 1.5 periods lecture + lab
Theory and practice of basic phlebotomy techniques including equipment, procedures, and protocol for handling specimens drawn for testing for law enforcement purposes. Prerequisites: Certified Law Enforcement Officer.
Corequisites: HCE110AA.

HCE109
Phlebotomy & Specimen Processing: Basic Skills
1 credit 2 periods lecture + lab
Theory and practice of basic phlebotomy and specimen processing including laboratory test codes, equipment, and procedures. Prerequisites: None.
Corequisites: HCC130, HCC145AA, or HCE108.

HCE110
Practicum: Fundamental Phlebotomy Skills
0.5 credit 3 periods lab
Application of fundamental phlebotomy techniques in a clinical laboratory setting or health care environment.
Prerequisites: HCE109, or permission of program director.

HCE110AA
Basic Phlebotomy: Training for Law Enforcement Officers
0.5 credit 1.5 periods lecture + lab
Application of basic phlebotomy techniques in a clinical laboratory setting or health care environment for law enforcement purposes. Prerequisites: Certified Law Enforcement Officer.
Corequisites: HCE108.

HCE111
Phlebotomy & Specimen Processing: Advanced Techniques
1 credit 1.5 periods lecture + lab
Theory and practice of advanced techniques in phlebotomy and specimen processing including laboratory test codes, equipment, and procedures.
Prerequisites: HCE109 or permission of instructor.

HCE120
Phlebotomy Practicum
1 credit 4.5 periods lab
Application of phlebotomy techniques in a clinical laboratory setting or health care environment. Prerequisites: HCE109, or permission of Program Director.
Corequisites: HCE111, or permission of Program Director.

HCE121
Practicum: Basic Specimen Processing
0.5 credit 3 periods lab
Application of specimen processing techniques in a clinical laboratory setting or health care environment.
Prerequisites: HCE109 or permission of instructor.

HCE/PED 148
Exercise Testing
0.5 credit 1.5 periods lecture + lab
Study of exercise testing principles as performed under the supervision of a physician. Prerequisites: HCC101, HCC103, HCC105, HCC107, and HCC109, or permission of program director.
Corequisites: HCE140 or permission of program director.

HCE150
Overview of Laboratory Assisting
1 credit 1 period lecture
Overview of laboratory services, laboratory professionals, and the role of a laboratory assistant. Understanding of certification, accreditation, and regulatory agencies. Emphasis on process improvement, laboratory mathematics, documentation, medico-legal implications, and specimen integrity. Application of pre-analytical and basic testing principles, infection control, and laboratory safety. Recognition of acceptable quality control and quality management principles. Includes information systems and information management in laboratories. Importance of professional growth and ethical conduct. Prerequisites: (HCC130 and HCC145AA and HCE109 and HCE110 and HCE111), or permission of program director.

HCE152
Laboratory Assisting: Principles and Procedures
2 credits 6 periods lecture + lab
Principles and procedures for pre-analytical processing of laboratory specimens. Performance of specimen processing, pre-analytical processes, and point-of-care testing. Application of quality assurance, quality control, infection control, and laboratory safety. Use of laboratory supplies, instrumentation, and information systems. Performing clerical and computer functions using medico-legal guidelines for documentation.
Prerequisites or Corequisite: HCE150.

HCE158
Laboratory Assisting Practicum
2 credits 6 periods lab
Practicum in laboratory assisting based in healthcare facilities or reference laboratories. Performance of clinical skills for pre-analytical processing of laboratory specimens, initial testing phases, and point-of-care testing using laboratory instrumentation, information systems, and supplies. Application of quality assurance, quality control, infection control, and laboratory safety. Performance of clerical and computer functions using medico-legal guidelines for documentation. Use of professional and ethical conduct in all interpersonal communications. Prerequisites: HCE150 and HCE152 and permission of program director.

HCE162
Aseptic Techniques
1 credit 3 periods lecture + lab
Fundamentals of microbial control. Includes procedures for sanitation, disinfection, and sterilization. Specimen collection and handling. Compliance with Occupational Health and Safety Administration (OSHA), the United States Center for Communicable Disease Control (CDC), and Clinical Laboratory Improvement Amendments (CLIA).
Prerequisites: None. Corequisites: HCC130, HCC145, or permission of Program Director.

For additional information on PC program competencies, visit:
http://www.dist.maricopa.edu/academic/curric/progpc.php

For additional information on MCCCD course competencies, visit:
http://www.dist.maricopa.edu/academic/curric/cs.php
HCE170
Overview of Histology (Anatomic)
1 credit 1 period lecture
Overview of anatomic laboratory services, anatomic laboratory professionals, and the role of the histology technician. Emphasis on certification, accreditation, and regulatory agencies. Application of process improvement, quality control, laboratory mathematics, infection control, sharps/mechanical hazards, documentation, medico-legal implications, and chemical hygiene principles. Includes information management in anatomic laboratories. Importance of management and supervision leadership principles and professional growth and ethical conduct. Prerequisites: Admission to Histology Program or permission of program director. Corequisites: HCE171 and HCE172.

HCE171
Histology Techniques Level 1
2 credits 2 periods lecture
Principles of fixation and fixative solutions. Anatomic laboratory instrumentation and specimen handling, identification, and tracking protocols. Emphasis on gross examination processes, tissue processing protocols, and specialized processing techniques. Prerequisites: Admission to Histology Program or permission of program director. Corequisites: HCE170 and HCE172.

HCE172
Histology Techniques Level 1 Practicum
3 credits 6 periods lab
Practicum in histology techniques performed in an anatomic laboratory. Application of clinical skills for specimen handling, identification, and tracking protocols. Use of anatomic laboratory instrumentation. Study of gross examination protocols. Demonstration of fixation techniques, paraffin processing protocols, and specialized processing techniques. Performance of clerical and computer functions using medico-legal guidelines for documentation. Use of professional and ethical conduct in all interpersonal communications. Prerequisites: Admission to Histology Program or permission of program director. Corequisites: HCE170 and HCE171.

HCE173
Histology Techniques Level 2
3 credits 3 periods lecture

HCE174
Histology Techniques Level 2 Practicum
3 credits 6 periods lab
Practicum in histology techniques performed in an anatomic laboratory. Use of decalcification and frozen section techniques. Includes embedding orientation by tissue type and ergonomic safety practices for microtomy. Procedures for the paraffin embedding station, cryostat and rotary microtome set-up and maintenance, and sharps safety practices for the microtome. Emphasis on techniques for microtomy, specialized microtomy, frozen section, and cytology specimen preparation. Prerequisites: HCE172. Corequisites: HCE173.

HCE175
Histology Techniques Level 3
3 credits 3 periods lecture
Recognition of basic cellular structure. Identification of carbohydrates, classification, pigments, minerals, and lipids in tissues and connective tissue structures. Explanation of chemical staining theory. Stain principles and procedures for nuclear and cytoplasmic structures, carbohydrates and lipids, connective tissue, and tissue pigments and minerals stains. Prerequisites: HCE173 and HCE174. Corequisites: HCE175.

HCE176
Histology Techniques Level 3 Practicum
3 credits 6 periods lab
Practicum in histology techniques performed in an anatomic laboratory. Recognition of basic cellular structure, carbohydrate structures, connective tissue, lipid structures, and pigments and minerals in tissues. Application of chemical staining. Emphasis on stains for nuclear and cytoplasmic structures, carbohydrates and lipids, connective tissue, and tissue pigments and minerals stains. Prerequisites: HCE173 and HCE174. Corequisites: HCE175.

HCE177
Histology Techniques Level 4
3 credits 3 periods lecture
HCE178
Histology Techniques Level 4 Practicum
3 credits 6 periods lab

HCE221
Administration of Medication
3 credits 4 periods lecture + lab
Principles and procedures for administering medications. Includes classifications, uses, effects, legal regulations, calculating dosages, and correct terminology. Emphasis on oral and parenteral drug administration. Prerequisites: None. Corequisites: HCC130, HCC145, or permission of program director.

HCE222
Clinical Procedures
3 credits 4 periods lecture + lab
Principles and procedures for the medical assistant. Methods of assisting clinicians with physical examinations, procedures, treatments, and minor surgical procedures in the medical office. Includes vital signs, height, and weight, collection of patient data and documentation. Prerequisites: None. Corequisites: HCC130, HCC145 or permission of program director.

HCE226
Administrative Procedures
3 credits 3 periods lecture
Principles and procedures for front office administrative skills. Methods of telephone management, correspondence and mail processing, appointment scheduling, medical records management and data collection. Includes medical assistant as office manager. Prerequisites: None. Corequisites: HCC130, HCC145 or permission of program director.

HCE227
Insurance, Billing and Coding
3 credits 3 periods lecture + lab
Application of insurance, coding and billing. Includes legal and ethical issues, federal, state and private insurance claims, procedural and diagnostic coding, and banking and accounting principles. Prerequisites: None. Corequisites: HCC130, HCC145 or permission of program director.

HCE/BPC229
Automated Computer System for Medical Office Management
1 credit 3 periods lecture + lab
Principles and procedures in using an office automated computerized system for entering patient information and tracking patient billing. Includes use of accounting cycle from originating data to closing ledger entries. Prerequisites: None. Corequisite: HCC130, HCC145, or equivalent, or permission of program director.

HCE251
Emergencies in the Medical Office
1.5 credits 1.5 periods lecture + lab
Emphasis on methods of identification and response to emergencies in a medical office. Prerequisites: None. Corequisites: HCC130, HCC145, or equivalent, or permission of program director.

HCE251
Applied EKG
1 credit 1.5 period lecture + lab
Entry-level training to professionally perform, process, and explain the electrocardiogram. Overview of cardiac anatomy, physiology, and conduction systems. Overview of commonly encountered drugs in cardiac medicine. Data collection, selection, processing, and presentation for the appropriate medical/clinical professional to review. Selected specific non-invasive cardiac testing procedures. Prerequisites: None. Corequisites: HCC130, HCC145 or HCC145AA, or HCC145AB, or HCC145AC), HCE102, HCE109, HCE110, HCE162, HCE167, HCE221, HCE222, HCE226, HCE227, HCE229, HCE251, HCE261, and permission of program director.

HCE281
Specialty Office Practices
1.5 credits 1.5 periods lecture + lab
Designed to meet the needs of medical assistants working in the offices of licensed Arizona osteopathic physicians and who perform basic therapeutic treatments and procedures on clients. Prerequisites: None.

HCE283
Advanced Concepts for Specialty Office Practice
4 credits 4 periods lecture + lab
Designed to meet the needs of medical assistants who work in the offices of licensed Arizona osteopathic physicians and who perform basic therapeutic treatments and procedures on clients. A critical overview of techniques, procedures, and policies affecting medical assistants in practice. Update on current methods, validation of knowledge and experience, and introduction to new procedures in a clinical setting. Prerequisites: HCE281 or permission of instructor.

HCE272
Patient Care Technician Skills
1 credit 1.5 periods lecture + lab
Designed to prepare students for advanced patient care skills. Fundamentals in microorganisms and microbial control. Specimen collection, handling and testing, wound care and catheterization. Prerequisites: Permission of Program Director.

HCE274
Administrative Medical Assisting Externship
1 credit 6 periods lab
Practicum in administrative medical assisting. Application of administrative duties, procedures, and knowledge derived from medical assisting courses. Prerequisites: HCC130, HCC145, HCE226, HCE227, HCE/BPC229, and permission of program director.

HCE275
Clinical Medical Assisting Externship
2 credits 9.6 periods lab
Practicum in clinical medical assisting. Application of clinical skills, procedures, and knowledge derived from medical assisting courses. Prerequisites: HCC130, HCC145, or (HCC145AA, HCC145AB, and HCC145AC), HCE102, HCE109, HCE110, HCE162, HCE167, HCE221, HCE222, HCE226, HCE227, HCE229, HCE251, HCE261, and permission of program director.
HCR – Health Care Related

HCR210
Clinical Health Care Ethics
3 credits 3 periods lecture
An introduction to health care ethics with emphasis on analysis and ethical decision making at both the clinical and health policy levels for health care professionals. Theoretical foundation of bioethics reviewed within historical and contemporary contexts. Prerequisites: ENG102.

HCR220
Health Care Organizations
3 credits 3 periods lecture
Overview of United States health care delivery systems; financing, health policy, impact of managed care, and basic principles of budgeting, cost-benefit analysis, and resource management. Prerequisites: ENG102.

HCR230
Culture and Health
3 credits 3 periods lecture
Relation between cultures of diverse groups and health/illness. Emphasis on cross-cultural communication, including awareness of own cultural influences and indigenous and complementary healing practices. Prerequisites: None.

HCR240
Human Pathophysiology
4 credits 4 periods lecture
Chemical, biological, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered. Prerequisites: BIO202 or equivalent.

HCR240AA
Human Pathophysiology I
2 credits 2 periods lecture
Chemical, biological, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered. Prerequisites: BIO202 or equivalent.

HCR240AB
Human Pathophysiology II
2 credits 2 periods lecture
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: HCR240AA.

HES – Health Science

HES100
Healthful Living
3 credits 3 periods lecture
Health and wellness and their application to an optimal lifestyle. Explores current topics of interest such as stress management, nutrition, fitness, and environmental health. Evaluates common risk factors associated with modern lifestyles. Prerequisites: None.

HES126
Women's Health Issues
2 credits 2 periods lecture
Develops awareness of health issues related to women. Examines diseases common to women. Explores predisposing and precipitating factors affecting health and reviews current treatment of disease. Focuses on the development of behaviors that promote a healthy and productive life. Prerequisites: None.

HES154
First Aid/ Cardiopulmonary Resuscitation
3 credits 3 periods lecture
Cardiopulmonary Resuscitation and first aid for the adult, child and infant patient, includes Automated External Defibrillator (AED), rescue breathing, obstructed airway, and other first aid procedures. Designed to train citizen responders in skills and procedures required during emergency situation. Prerequisites: None.

HES201
Substance Abuse and Behavior
3 credits 3 periods lecture
Principles and factual bases of drug use and abuse. Physiological and socio-psychological effects of drug use and law enforcement of drug abuse. Consultants used extensively to enrich course. Prerequisites: None.

HES210
Making Healthy Decisions: HIV/AIDS
1 credit 1 period lecture
HIV transmission and infection; AIDS-related diseases; prevention resources; effects of HIV/AIDS on society and health care system. Prerequisites: None.

HES221
Prevention and Treatment of Athletic Injuries
3 credits 3 periods lecture
Prevention and care of athletic injuries, emphasizing use of modern training techniques and support materials. Utilization of preventive taping, strapping, bandaging, cardiopulmonary resuscitation, massage, cryotherapy, hydrotherapy, and practical application of muscle reconditioning. Prerequisites: None.

HES272
Clinical Practicum in Athletic Training
1 credit 7.5 periods lab
Practical application, in a clinical setting and under direct supervision, of methods and techniques of treatment of athletic injuries. Prerequisites: HES271.

HES273
Athletic Training: Advanced Wrapping & Taping Techniques
2 credits 2 periods lecture
Expands and enhances practical uses of basic taping and wrapping skills. Hands-on experience in the use of braces, athletic taping, and elastic wraps to care for athletic injuries. Prerequisites: HES271 or permission of instructor.

For additional information on PC program competencies, visit:
http://www.dist.maricopa.edu/academic/curric/progpc.php

For additional information on MCCCD course competencies, visit:
http://www.dist.maricopa.edu/academic/curric/cs.php
HIP – Home Inspection
Program

HIP101
Home Inspection: Complete Standards, Requirements, and Procedures
7 credits 7 periods lecture
Coverage of the home inspection profession including practice standards, inspection requirements, and inspection procedures. Emphasis on applying knowledge of structures, exteriors, roofing, plumbing, electrical, heating, cooling, insulation, and ventilation; interiors as it pertains to their types, materials, application, installation, and construction techniques; and home inspection standards in the performance of a home inspection to determine the current condition of a residential dwelling. Prerequisites: None. Course Note: This course is intended to satisfy the state of Arizona’s requirement for 80 hours of post-secondary education for certification of home inspectors and will cover all home inspection areas mandated by Arizona state law.

HIP110
Home Inspection: Review and Examination
1 credit 1 period lecture
Complete review of the home inspection profession including professional practice standards, inspection requirements, and inspection procedures. Prerequisites: HIP101 or (HIP101AA, HIP101AB, HIP101AC, HIP101AD, HIP101AE, HIP101AF, HIP101AG, HIP101AH, HIP101AI, and HIP101AJ) with a grade of "C" or better, and at least 80 hours of college-verified attendance, or permission of department. Course Note: Students must score at least 70% on the final exam to receive a grade of "C" or better.

HIP201
Home Inspection Fieldwork
7 credits 7 periods lecture + lab
Student-candidate participation in at least thirty (30) parallel home inspections with logs of these inspections and submission of a minimum of five (5) home inspection reports attached to the state certificate application. Prerequisites: HIP110 with a grade of "C" or better, or a passing score on the National Home Inspector’s Examination, or permission of department. Course Note: State law dictates that a certified home inspector may only mentor up to four (4) home inspector candidates at a time.

HIS – History

HIS100
History of Western Civilization to Middle Ages
3 credits 3 periods lecture
Survey of the origin and development of Western civilization and its institutions from prehistory through the Ancient World and the Middle Ages. Prerequisites: None.

HIS101
History of West Civilization Middle Ages to 1789
3 credits 3 periods lecture
Survey of the origin and development of Western civilization and its institutions from the Renaissance and Reformation through the Age of Enlightenment. Prerequisites: None.

HIS102
History of Western Civilization 1789 to Present
3 credits 3 periods lecture
Survey of the origin and development of Western civilization and its institutions from the French Revolution through the present. Prerequisites: None.

HIS103
United States History to 1870
3 credits 3 periods lecture
The political, economic, and social development of the United States from Colonial through Reconstruction period. Prerequisites: None.

HIS104
United States History 1870 to Present
3 credits 3 periods lecture
The political, economic, and social development of the United States from Reconstruction period up to present time. Prerequisites: None.

HIS105
Arizona History
3 credits 3 periods lecture
The prehistoric and contemporary Native American experience, Spanish colonial times, the Mexican National period, the U.S. federal territorial years, and Arizona’s political and economic development during the twentieth century. Prerequisites: None.

HIS106
Southwest History
3 credits 3 periods lecture
Survey of Hispanic, Anglo, African-American and Native cultures of the peoples who have settled the American Southwest. Emphasis on cattle, mining, fur trade and transportation industries and role development of the region. Prerequisites: None.

HIS108
United States History 1945 to the Present
3 credits 3 periods lecture
Survey of American history from 1945 to the present. Focuses on the political, social, economic and cultural history of the United States from the end of World War II to the present time. Includes domestic developments and foreign policy. Prerequisites: None.

HIS109
Mexican-American History and Culture
3 credits 3 periods lecture
Examination of origins and development of the Spanish-American and Mexican-American peoples and their contribution to the culture, history and development of United States. Emphasis on Mexican-American War and its impact on educational, social, and economic conditions of the Mexican-Americans of the southwest. Prerequisites: None.

HIS145
History of Mexico
3 credits 3 periods lecture
Survey of the political, economic, and social forces which have shaped the development of Mexico from Pre-Columbian times to the present. Prerequisites: None.

HIS/AIS170
American Indian History of the Southwest
3 credits 3 periods lecture
Covers history of Indian peoples in the southwestern United States from pre-Columbian era to the present. Includes historical events, the development and implementation of Spanish-Mexican and United States’ policies and their impact on Indian peoples in these areas, and current issues of importance to Indian peoples. Prerequisites: None.
HIS201
History of Women in America
3 credits 3 periods lecture
Introduction to women's history from the colonial period to the present. Deals chronologically with changes and developments which have influenced the lives of women. Prerequisites: None.

HIS203
African-American History I
3 credits 3 periods lecture
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.

HIS209
The Chicoan in 20th Century America
3 credits 3 periods lecture
Analysis of the twentieth century experience. Historical perspective of the emergence of Chicanos as an influential minority in the United States. Prerequisites: None.

HIS/PHI/REL243
World Religions
3 credits 3 periods lecture
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.

HIS251
History of England to 1700
3 credits 3 periods lecture
Analysis of the major political, cultural, social, and intellectual factors in English historical development from its earliest times till 1660. Prerequisites: None.

HIS252
History of England 1700 to Present
3 credits 3 periods lecture
Analysis of the major political, cultural, social, and intellectual factors in English historical development from 1650 to the present. Prerequisites: None.

HIS275
Soviet Union and Slavic World
3 credits 3 periods lecture
Survey of the principle political, military, economic, social, and cultural developments in the Soviet Union from the Communist seizure of power in 1917 to the present. Includes a brief review of the geography, politics, and culture of pre-1917 Russia as a background. Prerequisites: None.

HIT – Health Information Technology

HIT101
Introduction to Health Information
2 credits 3 periods lecture + lab
Investigation of career opportunities, ethics, history, and functions of the health information management profession. The origin, content, and development of patient indexes and patient records. Design and maintenance of manual and computerized health information systems for filing, numbering, and storage of patient information. Prerequisites: HCC130 or permission of instructor.

HIT103
Coding for Medical Record Professionals
1 credit 1 period lecture
Current coding essentials with the application of International Classification of Diseases (ICD). Includes the coding of diseases and operations/procedures. Overview of the Medicare Prospective Payment System (PPS) including Diagnosis Related Groups (DRG). Prerequisites: Certification as a Registered Health Information Administrator (RHIA) or Registered Health Information Technician (RHIT) or equivalent training/experience.

HIT106
Legal Aspects of Health Information
3 credits 3 periods lecture
Legal aspects of health records, health information, and the health information department. Application n of general principles of law and health information management to legal proceedings. Emphasis on patient privacy and confidentiality, types of consents, and proper release of health information. Prerequisites: HCC130 or permission of instructor.

HIT150
Health Care Data
2 credits 3 periods lecture + lab
Introduction to data collection methods for health information systems. Study of the datasets and databases used in various health care settings. Overview of the creation and maintenance of health information disease registries and indexes. Prerequisites: [HIT101 and (BPC110 or CIS105)], or permission of instructor.

HIT180
Introduction to Medical Billing and Reimbursement
2 credits 2 periods lecture
An overview of the medical billing profession, the claims process, and federal billing guidelines. Study of major medical third-party payers including coverage offered, client eligibility, and reimbursement methodologies. Prerequisites: HCC130 or permission of instructor.

HIT181
Medical Claims Processing
3 credits 5 periods lecture + lab
Application of third-party payer billing information to claims processing in the non-hospital setting. Use of the computer for claims submission. Management of claims to ensure confidentiality, data retention, and successful payment for services. Prerequisites: [(BPC101AA or BPC/CIS121AE) and HIT180], or permission of Program Director. Prerequisites or Corequisites: (HIT185 and HIT212), or permission of Program Director.

HIT185
ICD Diagnostic Coding
3 credits 5 periods lecture + lab
International Classification of Diseases (ICD) diagnostic code assignment. Use of appropriate guidelines and federal, state, and local compliance standards for diagnoses. Prerequisites: [HCC145 and (BIO160 or BIO202)], or permission of Program Director.
HIT187
Physician-Based Medical Coding Seminar
0.5 credit 0.5 period lecture
Content and development of physician-based services coding compliance programs. Forum for discussion of classroom, laboratory, and professional practice experiences. Prerequisites: (HCC204, HIT185, and HIT214), or permission of Program Director. Corequisites: HIT189 or permission of Program Director.

HIT189
Professional Practice in Physician-Based Coding
1 credit 5 periods lab
Practical application of coding guidelines for the physician-based setting. Use of the International Classification of Diseases and Current Procedural Terminology systems to code ambulatory patient diagnoses and treatment. Prerequisites: (HCC204, HIT185, and HIT214), or permission of Program Director.

HIT201
Health Information Statistics and Research
2 credits 4 periods lecture & lab
Compilation and usage of various types of administrative and health care statistics including vital records. Overview of the health information research process. Use of computers for computation and data display. Prerequisites: [(BPC110 or CIS105), HIT101, and MAT102], or permission of instructor.

HIT204
Cancer Registry
4 credits 6 periods lecture + lab
Requirements for managing a cancer registry, including comparisons of systems and data related to a hospital and central cancer registry and other registry standard-setting organizations. Organization and management of the basic functions of cancer registry operations. Analysis and presentation of cancer data and use in studies. Prerequisites: HCC145 or permission of instructor. Corequisites: (BIO202 and HIT150) or permission of instructor.

HIT206
Documentation Standards
2 credits 3 periods lecture & lab
Standards and regulations for health records according to state, federal and accrediting agencies for health care facilities. Development of health information guidelines and methods to ensure timely and complete documentation. Prerequisites: HIT101 or permission of instructor.

HIT207
Health Information Management and Supervision
2 credits 2 periods lecture
Principles and practices essential to the efficient supervision and management of health information departments. Planning, organizing, directing, and controlling health information processes, personnel, finances, and space. Prerequisites: (HIT106 and HIT206), or permission of instructor.

HIT209
ICD Procedure Coding & Inpatient ICD Application
2 credits 4 periods lecture + lab
International Classification of Diseases (ICD) procedure code assignment. Use of appropriate coding guidelines and federal, state, and local compliance standards for procedures. Application of diagnostic and procedural codes for inpatient settings. Prerequisites: (BIO202, HCC204, and HIT185), or permission of Program Director.

HIT211
Advanced Applications of ICD Coding 2 credits 4 periods lecture + lab
Use of references, source documents, and computers for code assignment. Diagnostic-related group guidelines and federal regulations for hospital-based settings. Coding guidelines for home health, long term care, rehabilitation, and other health care settings. Use of codes for administrative purposes, marketing, state and county requirements. Prerequisites: (BIO202, HCC204, and HIT185), or permission of Program Director.

HIT212
CPT Coding I
2 credit 3 periods lecture + lab
Introduction to Current Procedural Terminology (CPT) from both facility and physician perspectives. General content, coding guidelines, and the role in healthcare reimbursement. Coding of basic medical and surgical services including use of modifiers. Introduction to computerized encoders. Ethical coding and compliance issues highlighted. Prerequisites: [HCC145 and (BIO160 or BIO202)], or permission of Program Director.

HIT214
CPT Coding II
2 credits 4 periods lecture + lab
In-depth exposure to CPT coding, reimbursement trends, guidelines, and coding from source documents. Application of current evaluation and management documentation guidelines. Emphasis on surgical procedures from a technical as well as a coding standpoint. Appropriate assignment of CPT and HCPCS Level II modifiers. Prerequisites: (HCC204 and HIT212), or permission of Program Director.

HIT215
Hospital-Based Medical Coding Seminar
0.5 credit 0.5 period lecture
Content and development of hospital-based coding compliance programs. Forum for discussion of classroom, laboratory, and professional practice experience. Prerequisites: (HIT209, HIT211, and HIT214), or permission of Program Director. Corequisite: HIT216 or permission of Program Director.

HIT216
Professional Practice in Hospital-Based Coding
1 credit 0.5 period lab
Practical application of coding guidelines for hospital-based medical coding. Use of International Classification of Diseases and Current Procedural Terminology systems to code services for hospital patients. Prerequisites: (HIT209, HIT211, and HIT214), or permission of Program Director. Corequisite: HIT215 or permission of Program Director.
HIT217
Health Information Seminar I
1 credit 1 period lecture
Theory of and practice in specialized health information activities. Forum for discussion of classroom, laboratory, and clinical affiliation experiences. **Prerequisites:** (HIT106, HIT150, HIT201, and HIT206), or permission of Program Director. **Corequisite:** HIT218 or permission of Program Director.

HIT218
Professional Practice
1 credit 5 periods lab
Practical application of acquired health information technical knowledge in health care settings. **Prerequisites:** (HIT106, HIT150, HIT201, and HIT206), or permission of Program Director. **Corequisite:** HIT217 or permission of Program Director.

HIT219
Health Information Systems
3 credits 5 periods lecture + lab
Overview of the fundamental concepts and terminology of health information systems with emphasis on computer systems for health information functions. Review of concepts influencing electronic and computerized patient records and automation of health information management functions. **Prerequisites:** (HIT150 and HIT206), or permission of instructor.

HIT220
Health Information Seminar II
1 credit 1 period lecture
Provides a forum for discussion of advanced clinical affiliation. Survey of current trends in health information management. Application of problem solving and research concepts to health information practices. **Prerequisites:** (HIT207, HIT217, HIT218, and HIT219), or permission of Program Director. **Corequisites:** HIT224 or permission of Program Director.

HIT224
Advanced Professional Practice
1 credit 5 periods lab
Practical application of advanced health information knowledge in a variety of health-related settings. Focus on supervision and management, interdepartmental policies and procedures, budget and staffing considerations, as well as committee planning and preparation. **Prerequisites:** (HIT207, HIT217, HIT218, and HIT219), or permission of Program Director. **Corequisite:** HIT220 or permission of Program Director.

HIT230
Quality Improvement and Management
2 credits 2 periods lecture
Focus on the history and development of quality assurance in various health care facilities, including quality assessment techniques, utilization management, risk management, credentialing, and medical staff services as related to health information management. **Prerequisites:** (HIT206 and HIT219), or permission of instructor.

HIT298AA-AC
Special Projects
1-3 credits 1-3 periods lab
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment 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.

HUM/THE210
Contemporary Cinema
3 credits 3 periods lecture
A study of contemporary films, directors, and critics with emphasis on evaluating films as an art form. **Prerequisites:** None.

HUM211AA
Foreign Films: Classics
3 credits 3 periods lecture
Analysis of contributions of foreign directors to the art and history of motion pictures through a study of selected films. **Prerequisites:** None.

HUM212
Documentary Film
3 credits 3 periods lecture
Survey of documentary (non-fiction) film with an emphasis on international issues. Focus on primary types of documentary film, including direct address, direct cinema, interviews, etc. **Prerequisites:** None.

HUM105AC
Cultural Perspectives: Asian Ideas & Values
1 credit 1 period lecture
An interdisciplinary examination of the history, arts, ideas, and values of Asian peoples and their contribution to life in the United States. **Prerequisites:** None.

HUM105AB
Cultural Perspectives: Native-American Ideas and Values
1 credit 1 period lecture
An interdisciplinary examination of the history, arts, ideas, and values of Native Americans and their contribution to life in the United States. **Prerequisites:** None.

HUM105AC
Cultural Perspectives: Asian Ideas & Values
1 credit 1 period lecture
An interdisciplinary examination of the history, arts, ideas, and values of Asian peoples and their contribution to life in the United States. **Prerequisites:** None.
HUM105AD
Cultural Perspectives: Hispanic Ideas & Values
1 credit 1 period lecture
An interdisciplinary examination of the history, arts, ideas, and values of Hispanic peoples and their contribution to life in the United States. Prerequisites: None.

HUM105AE
Cultural Perspectives: Middle-Eastern Ideas & Values
1 credit 1 period lecture
An interdisciplinary examination of the history, arts, ideas, and values of Middle Eastern peoples and their contribution to life in the United States. Prerequisites: None.

HUM108
Contemporary Humanities
3 credits 3 periods lecture
An exploration of human expression in contemporary arts and sciences. Prerequisites: None.

HUM120
Cultural Viewpoints in the Arts
3 credits 3 periods lecture
Introduction to the influence of culture and ethnicity on the artist, including factors such as race, religion, gender, class, sexual preference, age, and region. Lecture and discussion on various art forms, including literature, visual arts, music, dance, film, and theater. Prerequisites: None.

HUM125
The Urban Experience
3 credits 3 periods lecture
Examines the urban experiences’ representation in and influence on the arts; considers such subjects as the physical environment of the city, language, ethnic diversity, values, perception of time and space, relationship between the individual and the community. Lecture and discussion on various art forms, including literature, visual arts, music, dance, film, and theater. Prerequisites: None.

HUM190AA-AI
Honors Forum
1 credit 1 period lecture
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 instructor.

HUM202
Humanities: Universal Themes
3 credits 3 periods lecture
The hero/heroine; fool; the social world, and the future as themes in the humanities. Prerequisites: None.

HUM203
Humanities: The Intellectual Community/Ethics
3 credits 3 periods lecture
Presents ethical issues through readings from philosophy, literature, and performing or visual arts. Practice in the expository form as a means of mastering ethical ideas and their application in resolving conflict. Prerequisites: ENG101, or permission of instructor.

HUM/THE206
Introduction to Television Arts
3 credits 3 periods lecture
History and development of electronic media and its impact on popular arts. Prerequisites: None.

HUM207
Humanities: Biomedical Ethics
3 credits 3 periods lecture
Examines the ethical basis of solutions for biomedical issues through readings from philosophy and literature; consideration of contemporary, cross-cultural, and historical case studies. Prerequisites: None.

HUM208
Arts and World Views of the Southwest
3 credits 3 periods lecture
Examination of arts, ideas, and values of the Southwest and their connection to a larger humanistic world view. Analysis of cultural, environmental, and historical factors as they influence creative expressions. Emphasis on critique of artistic expressions from both cultural and aesthetic perspectives. Prerequisites: CRE101 or permission of instructor.

HUM/WST209
Women and Films
3 credits 3 periods lecture
Analysis of images of women in films from both historical and contemporary perspectives. Prerequisites: None.

HUM250
Ideas and Values in the Humanities
3 credits 3 periods lecture
An historical analysis of the interrelationships of art, architecture, literature, music, and philosophy from the early civilizations to the Renaissance, including Western and non-Western cultures. Prerequisites: ENG101.

HUM251
Ideas and Values in the Humanities
3 credits 3 periods lecture
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.

HUM260
Intercultural Perspectives
3 credits 3 periods lecture
Cultural, literary, and artistic expressions of Native, Hispanic, and African Americans. Includes traditional and modern work and contribution to American civilization. Prerequisites: None.

IBS – International Business

IBS101
Introduction to International Business
3 credits 3 periods lecture
A basic overview of international business to introduce students to international trade concepts. Focus of the course is on international business environment issues that influence global business practices, decisions and applications. Prerequisites: None.

IBS102
International Marketing
2 credits 2 periods lecture
Focuses on how to plan and implement international marketing strategies through application of several concepts: international marketing research; market evaluation; cultural, economic, and political environments; product, price, promotion and distribution strategies; and implementation. Prerequisites: None.
IFS – Information Literacy

IFS101
Information Skills in the Digital Age
3 credits 3 periods lecture
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.
Prerequisite: ENG101, or ENG107, or equivalent.

INT – Interior Design

INT105
Introduction to Interior Design
3 credits 3 periods lecture
Introduction to the profession of interior design, including design process, elements and principles of design, and basic concepts of space planning and furniture layout. Development of design vocabulary relative to architectural details, furnishings, and finishes. Prerequisites: None.

INT115
Historical Architecture and Furniture
3 credits 3 periods lecture
Historical survey of the development of furniture, interiors, and architecture from antiquity to the 19th Century. Prerequisites: None.

INT120
Modern Architecture and Furniture
3 credits 3 periods lecture
Survey of the development of furniture, interiors, and architecture from the 19th Century to the present. Emphasis is on modern architects and designers. Prerequisites: None.

INT140
Introduction to Architectural Desktop for Interior Design
3 credits 3 periods lecture + lab
Introduction to Architectural Desktop AutoCAD (tm) tools for the interior designer with emphasis on industry-accepted standards for interior design following American Institute of Architects (AIA) guidelines. Prerequisites: DFT121.

INT145
Drawing and Rendering
3 credits 6 periods lecture + lab
Development of basic freehand sketching and perspective drawing skills. Explores styles and techniques with emphasis on quick sketch and presentation type drawings as used by design professionals. Prerequisites: DFT121.

INT150
Color and Design
3 credits 6 periods lecture + lab
Introduction to the theory and application of color as related to the elements and principles of design. Light and its effect on color. Emphasis on the development of presentation skills for the field of interior design. Prerequisites: None.

INT160
Fabrics for Interiors
3 credits 3 periods lecture
Study of the properties, design, and performance characteristics of interior fabrics. Psychological and cultural impact of textiles on the built environment. Role of the interior designer in working with textiles. Introduction to regulations and codes within the textile industry. Prerequisites: None.

INT170
Interior Materials
3 credits 6 periods lecture + lab
Properties, performance, maintenance, sustainability and general characteristic of interior finishes, furnishings, and equipment. Emphasis on building a resource file of interior finishes, furnishings, and equipment sources. Prerequisites: INT105. Prerequisites or Corequisites: INT160.

INT175
Custom Design
3 credits 6 periods lecture + lab
Custom design for interiors. Creative problem solving using design theory and process. Visualization of concepts through sketching. Prerequisites: INT105 and DFT121.

INT190
Space Planning
3 credits 6 periods lecture + lab
Study of creative, critical, analytical and strategic thinking as it relates to human behavior and the built environment. Emphasis on the design process and tasks within each phase of the process. Stresses creative expression through the utilization of design elements and principles. Prerequisites: INT105 and DFT121. INT140 or DFT105 recommended but not required.

INT210
Interior Sales and Marketing
3 credits 3 periods lecture
(Not offered every semester)
Marketing procedures and sales techniques for interior designers. Prerequisites: Permission of instructor.

INT240
Kitchen and Bath Design
3 credits 6 periods lecture + lab
Exploration into the specific requirements associated with kitchen and bath design. Emphasis on the design process and computer-based tools for interior design. Prerequisites: (INT190 and DFT105) or INT140.

INT260AB
ADA Compliance
1.5 credits 1.5 periods lecture
(Not offered every semester)
Study of the interior designer’s ability to affect people and the environment through barrier-free design concepts. Emphasis on how the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and the seven principles of Universal Design impact the design of the interior environment. Prerequisites: AAS Degree in Interior Design or permission of department.

INT260AC
Interior Building Codes
1.5 credits 1.5 periods lecture
(Not offered every semester)
Study of interior building codes, regulations, and standards and their impact on the health, safety, and welfare of the public. Emphasis on occupancy classifications, means of egress, fire protection, and finish plus furniture standards and testing. Prerequisites: AAS Degree in Interior Design or permission of department.
INT265
Building Systems
3 credits 3 periods lecture
(Not offered every semester)
Study of building systems and their impact on the health, safety and welfare of the public. Prerequisites: AAS Degree or permission of department.

INT270
Commercial Design
3 credits 6 periods lecture + lab
(Not offered every semester)
Creation of design solutions for commercial spaces. Focuses on issues affecting the health, safety and welfare of the public. Prerequisites: AAS Degree or permission of instructor.

INT271AA
Interior Design Internship
1 credit 5 periods lab
Interior design work experience in the interiors industry. Required to work 80 hours. Supervised and evaluated by a coordinator. Prerequisites: Departmental approval. Course Note: May be repeated for a total of four (4) credits with department permission.

INT271AB
Interior Design Internship
2 credits 10 periods lab
Interior design work experience in the interiors industry. Required to work 160 hours. Supervised and evaluated by a faculty coordinator. Prerequisites: Departmental approval. Course Note: May be repeated for a total of four (4) credits with department permission.

INT271AC
Interior Design Internship
3 credits 15 periods lab
Interior design work experience in the interiors industry. Required to work 240 hours. Supervised and evaluated by a faculty coordinator. Prerequisites: Departmental approval.

INT274AA
Interior Design Study Tour
1 credit 5 periods lab
INT274AB
Interior Design Study Tour
2 credits 10 periods lab
INT274AC
Interior Design Study Tour
3 credits 15 periods lab
A tour of the interior design industry outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about this multi-faceted career. Prerequisites: Departmental approval.

INT280
Design Business Procedures
3 credits 3 periods lecture
(Not offered every semester)
Business procedures for the interiors industry including certification, professional practices and ethics. Emphasizes the use of a business plan and business processes used in studios. Prerequisites: INT190.

IPP - Interpreter Preparation Program

Also see Sign Language, SLG, on page 316.

IPP215
ASL to English Consecutive Interpreting
2 credits 3 periods lecture + lab
Sequential development of consecutive interpreting skills from American Sign Language (ASL) to English. Source language analysis and target language equivalents emphasized. Analysis of texts and contexts of naturally occurring monologues, guidance for discovering personal “filters,” practice of skills, techniques for self and peer evaluations, and application of theoretical models. Prerequisites: Acceptance into the Interpreter Preparation Program or permission of department/division. IPP215 suggested but not required.

IPP219
English to ASL Consecutive Interpreting
2 credits 3 periods lecture + lab
Sequential development of consecutive interpreting skills from English to American Sign Language (ASL). Source language analysis and target language equivalents emphasized. Analysis of texts and contexts of naturally occurring monologues, guidance for discovering personal “filters,” practice of skills, techniques for self and peer evaluations, and application of theoretical models. Prerequisites: IPP218 or permission of department/division.

IPP220
Interactive Interpreting I
4 credits 5 periods lecture + lab
Sequential development of interactive interpreting skills from English to American Sign Language (ASL) and from ASL to English. Perform source language analysis, apply cognitive processing techniques, and produce target language equivalents. Analysis of texts and contexts of naturally occurring dialogues, practice of skills, techniques for self and peer evaluations, and application of theoretical models. Prerequisites or Corequisites: IPP215 and IPP218 or permission of department/division.

For additional information on PC program competencies, visit:
http://www.dist.maricopa.edu/academic/curric/progpcc.php

For additional information on MCCCD course competencies, visit:
http://www.dist.maricopa.edu/academic/curric/cs.php
IPP221
Interactive Interpreting II
3 credits 4 periods lecture + lab
Continued development of interactive interpreting skills from English to American Sign Language (ASL) and from ASL to English. Perform source language analysis, apply cognitive processing techniques, and produce target language equivalents. Analysis of texts and contexts of naturally occurring dialogues, practice of skills, techniques for self and peer evaluations, and application of theoretical models. Prerequisites: IPP220 or permission of department/division.

IPP229
Interpreter Preparation Internship Seminar
1 credit 1 period lecture
Classroom portion of the Interpreter Preparation Program internship. Emphasizes the blend of job-related activities including career exploration, employment application procedures, interpersonal skills, and on-the-job problems. May be repeated for a total of four (4) credits. Prerequisites: Acceptance into the Interpreter Preparation Program and/or program director approval. Corequisites: IPP220AA or IPP220AB or IPP230AC or IPP230AD.

IPP230AA
Interpreter Preparation Program Internship
1 credit 5 periods lab
Laboratory portion of the Interpreter Preparation Program seminar. Eighty (80) clock hours of work required. Practical experience in settings such as educational, rehabilitation, community service centers, and agencies serving children, adolescents, and/or adults who are deaf or hard of hearing. Designed to provide students with the opportunity to synthesize practical and academic experiences gained during the in-classroom portion of the program. Site, supervision, and plan of activity mutually agreed upon by the student and instructor. Capstone experience for AAS degree students. May be repeated for a total of four (4) credits. Prerequisites: Acceptance into the Interpreter Preparation Program and/or program director approval. Corequisites: IPP220.

IPP230AB
Interpreter Preparation Program Internship
2 credits 10 periods lab
Laboratory portion of the Interpreter Preparation Program Seminar. One hundred sixty (160) clock hours of work required. Practical experience in settings such as educational, rehabilitation, community service centers, and agencies serving children, adolescents and/or adults who are deaf or hard of hearing. Designed to provide students with the opportunity to synthesize practical and academic experiences gained during the in-classroom portion of the program. Site, supervision, and plan of activity mutually agreed upon by the student and instructor. Capstone experience for AAS degree students. May be repeated for a total of four (4) credits. Prerequisites: Acceptance into the Interpreter Preparation Program and/or program director approval. Corequisites: IPP229.

IPP230AC
Interpreter Preparation Program Internship
3 credits 15 periods lab
Laboratory portion of the Interpreter Preparation Program Seminar. Two hundred forty (240) clock hours of work required. Practical experience in settings such as educational, rehabilitation, community service centers, and agencies serving children, adolescents and/or adults who are deaf or hard of hearing. Designed to provide students with the opportunity to synthesize practical and academic experiences gained during the in-classroom portion of the program. Site, supervision, and plan of activity mutually agreed upon by the student and instructor. Capstone experience for AAS degree students. Prerequisites: Acceptance into the Interpreter Preparation Program and/or program director approval. Corequisites: IPP229.

IPP230AD
Interpreter Preparation Program Internship
4 credits 20 periods lab
Laboratory portion of the Interpreter Preparation Program Seminar. Three hundred twenty (320) clock hours of work required. Practical experience in settings such as educational, rehabilitation, community service centers, and agencies serving children, adolescents and/or adults who are deaf or hard of hearing. Designed to provide students with the opportunity to synthesize practical and academic experiences gained during the in-classroom portion of the program. Site, supervision, and plan of activity mutually agreed upon by the student and instructor. Capstone experience for AAS degree students. Prerequisites: Acceptance into the Interpreter Preparation Program and/or program director approval. Corequisites: IPP229.

ITA- Italian

ITA101
Elementary Italian I
4 credits 4 periods lecture
Introduction to basic grammar, pronunciation, and vocabulary of Italian. Development of speaking, listening, reading, and writing skills. Study of Italian culture. Prerequisites: None.

ITA102
Elementary Italian II
4 credits 4 periods lecture
Continued development of speaking, listening, reading, and writing skills in Italian. Study of Italian culture. Prerequisites: ITA101 or equivalent or departmental approval.

ITA115
Beginning Italian Conversation I
3 credits 3 periods lecture
Conversational Italian. Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in Italian. Designed for students seeking speaking and listening abilities with little emphasis on grammar. Prerequisites: None.

ITA116
Beginning Italian Conversation II
3 credits 3 periods lecture
Continued development of speaking and listening skills for effective communication in Italian. Prerequisites: ITA115 or equivalent or departmental approval.
IT201
Intermediate Italian I
4 credits 4 periods lecture
Review of essential grammar of the Italian language and study of the Italian Culture. Continued practice and development of reading, writing, and speaking skills. Prerequisites: ITA102 or equivalent or departmental approval.

IT202
Intermediate Italian II
4 credits 4 periods lecture
Continued development of Italian language skills and continued study of the Italian culture. Prerequisites: ITA201, or equivalent, or departmental approval.

IT225
Intermediate Italian Conversation I
3 credits 3 periods lecture
Continued development of skills in conversational Italian for effective communication. A review of grammar and development of vocabulary. Intensified study of Italian life and culture. Prerequisites: ITA102, or equivalent, or departmental approval.

IT226
Intermediate Italian Conversation II
3 credits 3 periods lecture
Continued development of skills in conversational Italian for effective communication. A review of grammar and development of vocabulary. Intensified study of Italian life and culture. Prerequisites: ITA225, or ITA201, or departmental approval.

ITS - Information Technology Security

ITS100
Information Security Awareness
2 credits 2 periods lecture
Computer and network security topics, including network communication. Includes security policy, implementation of basic security measures, the importance of backups and the value of protecting intellectual property. Real-life examples and practical projects to reinforce the need for computer security. Prerequisites: None.

ITS110
Information Security Fundamentals
4 credits 5 periods lecture + lab
Fundamental concepts of information technology security. Topics include authentication methods, access control, cryptography, Public Key Infrastructure (PKI), network attack and defense methods, hardening of operating systems and network devices, securing remote access and wireless technologies and securing infrastructures and topologies. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and Microsoft (MS) Windows and Linux Administration. Prerequisites: (CIS126DA or CIS126DL) and (CNT150 and MST150DA or MST150XP), or permission of instructor.

ITS120
Legal, Ethical and Regulatory Issues
3 credits 3 periods lecture
Exploration of legal and ethical issues unique to information security. Analysis of professional ethical codes and their application to information security practitioners. Federal and state laws as they relate to information security. Prerequisites: ITS110 or permission of instructor.

ITS130
Operating System Security
3 credits 4 periods lecture + lab
In-depth examination of operating system security including Transmission Control Protocol/Data Encryption Standard (DES), Triple Data Encryption Standard (3DES), Advanced Encryption Standard (AES), Pretty Good Privacy (PGP), and other encryption technologies (TCP/IP), Internet Protocol Security (IPSec) and Cisco Internetwork Operating System (IOS), Microsoft Windows, Linux and Mac OS X Security. Procedures to defend networks against attacks and recovery from network disasters. Web server security. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and MS Windows and Linux Administration. Prerequisites: ITS110 or permission of instructor.

ITS140
Network Security
3 credits 4 periods lecture + lab
Examination of techniques used to defend network security. Design and implementation of devices including firewalls and Intrusion Detection Systems (IDSs) and Virtual Private Networks (VPNs). Risk analysis and security policies methodologies. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and MS Windows and Linux Administration. Prerequisites: (ITS110 and ITS130) or permission of instructor.

ITS170
Information Security Policy Development
1 credit 1 period lecture
Components required to plan, develop and write information security policies. Policy development processes and the relationship between security and policy directions. Emphasis on writing effective information security policies in a governmental or corporate setting. Prerequisites: None.

ITS172
Viruses and Other Malicious Software
1 credit 2 periods lecture + lab
Spyware, adware, viruses, worms and trojans. Available tools for identifying and removing malicious software. Techniques for analyzing the behavior of malicious software. Methods of infection and prevention of infection. Prerequisites: None.

JAS - Justice Agencies Support

JAS101
Introduction to Justice & Government Agency Administration
3 credits 3 periods lecture
The conceptual and contextual elements of bureaucracies in justice and government administration and policy. Decision-making processes in government and the relationships of various constituencies. Prerequisites: None.
LAS102
Principles of Management for Justice & Government Agencies I
3 credits 3 periods lecture
Introduction to basic principles of modern management in justice and other government agencies. Emphasis on supervisor-employee relationships. Prerequisites: None.

JAS101
Basic Principles of Government Fiscal Administration
3 credits 3 periods lecture
Basic principles of fiscal administration for state and local government. Includes discussion of budgeting, financial management, revenue fund management, performance measures and reporting, and audits. Prerequisites: JAS101 or permission of instructor.

JAS110
Basic Principles of Human Resources Management for Justice and Government Agencies
3 credits 3 periods lecture
Overview of human resources management in government. Includes discussion of planning, staffing, training, compensating, and appraising. Prerequisites: JAS101 or permission of instructor.

JAS115
Organizational Behavior in Justice & Government Agencies
3 credits 3 periods lecture
Principles of management in government from an organizational behavior perspective. Discussion of levels of organizational behavior: the individual, the group, and the organizational system. Prerequisites: JAS101 or permission of instructor.

JAS200
Principles of Management for Justice & Government Agencies II
3 credits 3 periods lecture
Elaboration of effective practices for managing employees in government. Prerequisites: JAS102 or permission of instructor.

JAS225
Statistics for Social Research/Justice & Government
3 credits 3 periods lecture
Introductory course in descriptive and inferential statistics for social research. Designed to serve as preparation for interpreting and understanding research related to Justice and Government related agencies. Prerequisites: MAT102 or completion of higher level mathematics course.

JAS250
Managing Individuals in Groups for Justice & Government Agencies
3 credits 3 periods lecture
Advanced management practices focusing on the manager as a work group leader in justice and government agencies. Prerequisites: JAS102 or permission of instructor.

JPN – Japanese

JPN115
Beginning Japanese Conversation I
3 credits 3 periods lecture
Conversational Japanese. Basic sentence structure, pronunciation, and vocabulary necessary to develop speaking ability in Japanese. Designed for students seeking speaking and listening abilities, with little emphasis on grammar, reading, or writing. Prerequisites: None.

JPN116
Beginning Japanese Conversation II
3 credits 3 periods lecture

LAS – Legal Assisting

LAS100
Introduction to Paralegalism
1 credit 1 period lecture
Focus on the role, responsibilities, and ethical standards of a legal assistant/paralegal. Provides an overview of the legal system and the role of the legal assistant in the legal system. Emphasis on professional development and job-search strategies. Prerequisites: None.

LAS101
Introduction to Law
3 credits 3 periods lecture
Legal terminology and basic legal principles in the areas of tort, contract, and criminal law. Interrelationships among lawyers, the court system, and law enforcement and administrative agencies. Development of a case for trial, adjudication, and post-verdict procedures in the civil and criminal systems. Prerequisites: None. Suggested but not required: ENG101 and CRE101 or exemption by score on the reading placement test (ASSET).

LAS109
Legal Procedures I
3 credits 3 periods lecture
Pretrial procedural issues in both Arizona and the federal system. Emphasis on Arizona Rules of Civil Procedure 1-37, 41, 55, 56, and 72-76. Coverage of applicable time limits, filing requirements, and proficiency in locating appropriate provisions in the Arizona Rules of Civil Procedure. Drafting of pleadings and motions and the application of procedural rules pertinent to the early stages of civil litigation. Prerequisites or Corequisites: LAS101 and (BPC110 or permission of department chair or program director.)

LAS110
Legal Procedures II
3 credits 3 periods lecture
Application of the procedural aspects of discovery, trial preparation, and post-trial work as part of a litigation team. Emphasis on practical concerns, such as interviewing of witnesses; preparation of discovery documents, exhibits, and transmittal memoranda; summarizing and indexing depositions; organization of files; preparation of trial notebooks; and participation in a mock trial. Prerequisites: LAS109 and (BPC110 or permission of department chair or program director).
LAS115
Criminal Trial Procedure
3 credits 3 periods lecture
Procedural aspects of the criminal trial process in Arizona state courts from preliminary proceedings through trial. Emphasis on application of the rules of criminal procedure and preparation of common trial documents by paralegals. Documents include the charging instrument, pre-trial motions, and jury instructions. Prerequisites: LAS101 or permission of department chair, or program director. Prerequisites or Corequisites: BPC110 or permission of department chair or program director.

LAS131
Legal Writing I
3 credits 3 periods lecture
The use of proper grammar, punctuation, and spelling in the construction of sentences and the development of paragraphs. Use of case briefs to study effective writing and analytical techniques. Analysis and application of the writing process to produce well-written documents commonly used in the practice of law. Prerequisites or Corequisites: LAS109 and (BPC110 or permission of department chair or program director).

LAS203
Ethics and Professional Practice
3 credits 3 periods lecture
Rules of professional responsibility and ethical requirements with an emphasis on their application to legal assistants. Sources of power to regulate the practice of law. Issues related to unauthorized practice of law. Examination of professionalism in the legal profession. Prerequisites: LAS131 and (BPC110 or permission of department chair or program director).

LAS204
Business Law For Legal Assistants
3 credits 3 periods lecture
NOTE: Course changes not available at time of printing. Consult with Academic Advisement.
Examination of legal contracts and contracts regulated by the Uniform Commercial Code (sales contracts and secured transactions); examination of business organizations including sole proprietorships, partnerships, corporations, and limited liability companies. Includes drafting of contracts and documents used in the formation and operation of business organizations. Prerequisites or Corequisites: LAS109 and (BPC110 or permission of department chair or program director).

LAS208
Probate
3 credits 3 periods lecture
Emphasis on various ways in which property can be held and passed on. Requirements for valid wills and trusts. Steps involved in estate administration and appropriate forms to be used. Includes drafting basic wills and simple trusts. Prerequisites: LAS109 and (BPC110 or permission of department chair or program director).

LAS211
Legal Research
3 credits 3 periods lecture
Use of print and electronic media to locate public documents, statutes, administrative regulations, and cases from county, state, and federal jurisdictions. Reading and interpreting research results. Shepardizing. Use of proper citation forms. Prerequisites: ENG101 Prerequisites or Corequisites: LAS109 and (BPC110 or permission of department chair or program director).

LAS212
Insurance and Tort Law
3 credits 3 periods lecture
Basic elements of negligence, strict liability, intentional torts; defenses; damages; insurance coverage. Evaluation of records and personal injury claims; review of insurance policies; settlement brochure; preparation of case intake memorandum. Prerequisites: LAS109 and (BPC110 or permission of department chair or program director).

LAS216
Real Estate Transactions
3 credits 3 periods lecture
Investigation into various aspects of real estate sales, purchases and encumbrances. Includes preparation of deed of trust and an agreement for sale of property. Prerequisites: LAS109 and (BPC110 or permission of department chair or program director).

LAS217
Family Law
3 credits 3 periods lecture
Legal analysis of marriage, dissolution of marriage, parental rights and duties; pleading and practice. Prerequisites: LAS109 and (BPC110 or permission of department chair or program director).

LAS218
Administrative Law
3 credits 3 per lecture
Introduction to fundamental administrative law concepts including the delegation of powers, due process, citizen access and participation, rulemaking, adjudication, and judicial review. Emphasis on Arizona administrative procedures and the role of the paralegal in informal and prehearing advocacy and proceedings before a hearing officer. Prerequisites: LAS109 and (BPC110 or permission of department chair or program director).

LAS220
Legal Assisting Internship Seminar
1 credit 1 period lecture
NOTE: Course changes not available at time of printing. Consult with Academic Advisement.
Coordinates on-the-job experiences with interpersonal relations, communications, time-management, and case-management skills. Provides opportunity to discuss problems encountered during internship. Prerequisites: LAS203 and LAS211 and (LAS204 or LAS212), and (BPC110 or permission of department chair or program director). Corequisites: LAS221AA or LAS221AB or LAS221AC.
LAS221A
Legal Assisting Internship
1 credits 5 periods lab
NOTE: Course changes not available at time of printing. Consult with Academic Advisement.
Laboratory portion of LAS220, Legal Assisting Internship Seminar; 80 hours of work. Supervision and evaluation by on-the-job supervisor as well as college coordinator. May be repeated for a total of three (3) credit hours. Prerequisites: Permission of department chairperson or program director/COORDINATOR. Corequisites: LAS220.

LAS221AB
Legal Assisting Internship
2 credits 10 periods lab
NOTE: Course changes not available at time of printing. Consult with Academic Advisement.
Laboratory portion of LAS220, Legal Assisting Internship Seminar; 160 hours of work. Supervision and evaluation by on-the-job supervisor as well as college coordinator. May be repeated for a total of four (4) credit hours. Prerequisites: Permission of department chairperson or program director/COORDINATOR. Corequisites: LAS220.

LAS221AC
Legal Assisting Internship
3 credits 15 periods lab
NOTE: Course changes not available at time of printing. Consult with Academic Advisement.
Laboratory portion of LAS220, Legal Assisting Internship Seminar; 240 hours of work. Supervision and evaluation by on-the-job supervisor as well as college coordinator. May be repeated for a total of six (6) credit hours. Prerequisites: Permission of department chairperson or program director/COORDINATOR. Corequisites: LAS220.

LAS225
Legal Research, Analysis, and Writing
3 credits 3 periods lecture
Integration and further development of legal research and writing skills with an emphasis on critical thinking, issue analysis, and motion practice. Focus on integrating research, writing, and legal argument development. Prerequisites: LAS131 and LAS211 and (BPC110 or permission of department chair or program director).

LAS229
Computerized Law Office & Litigation Support
3 credits 3 periods lecture
Word processing skills for the law office; use of presentation software; types and comparisons of litigation support systems; types and uses of electronic trial software; coding schemes; management of integrated litigation support system. Fee arrangements; the billing cycle; billing procedures; management of billing activities. Management of names, matters, and events; indexing structures; reports; ethical issues. Prerequisites: LAS110 and (BPC110 or equivalent or permission of department chair or program director).

LAS237
Legal Interviewing, Investigation, and Report Writing
3 credits 3 periods lecture
Foundations for interviewing and investigation. Questioning of clients and experts. Documenting and summarizing interviews. Factual investigation sources and techniques. Evidence analysis and preservation. Documenting results of factual investigations. Prerequisites: LAS131 and LAS211 and (BPC110 or permission of department chair or program director).

LAS261
Bankruptcy
3 credits 3 periods lecture
Examination of bankruptcy laws and procedures and the role of paralegals in bankruptcy practice, including the commencement of a case, preparation of schedules, review of adversary matters and litigation, debtors’ and creditors’ rights and obligations. Prerequisites: LAS109 and (BPC110 or permission of department chair or program director).

LAS295AA
Special Topics in Civil Law
1 credit 1 period lecture
Explores special topics related to the practice of civil law. Focuses on substantive and procedural aspects. May be repeated for a total of two (2) credits. Prerequisites: Completion of Legal Assisting degree or certificate, or permission of department.

LAS295BA
Special Topics in Criminal Law
1 credit 1 period lecture
Explores special topics related to the practice of criminal law. Focuses on substantive and procedural aspects. May be repeated for a total of two (2) credits. Prerequisites: Completion of Legal Assisting degree or certificate, or permission of department.

LAS295CA
Special Topics in Administrative Law
1 credit 1 period lecture
Explores special topics related to the practice of administrative law. Focuses on substantive and procedural aspects. May be repeated for a total of two (2) credits. Prerequisites: Completion of Legal Assisting degree or certificate, or permission of department.

LAT – Latin

LAT101
Elementary Latin I
4 credits 4 periods lecture
Introduction to the basic grammar and vocabulary of the Latin language. Practice reading and translating Latin into English. Prerequisites: None.

LAT102
Elementary Latin II
4 credits 4 periods lecture
Comparative study of English and Latin grammar. Emphasis on analytical thinking, memorization, and familiarization with new terminology. Translation from English and from original works in Latin. Prerequisites: LAT101 or permission of instructor.

LAT201
Intermediate Latin I
4 credits 4 periods lecture
Introduction to translation technics using selections from various authors; emphasis on use of primary texts. Prerequisites: LAT102.
MAT065
Graphing Calculator
1 credit 1 period lecture
Computations, graphing, matrices, and elementary programming using a graphing calculator. Prerequisites: None.

MAT066
Overcoming Math Anxiety
1 credit 1 period lecture
Designed for students who avoid mathematics courses and/or who have experienced anxiety in mathematics courses. Includes definition and effects of math anxiety. Emphasis on study skills and test-taking strategies. Prerequisites or Corequisites: Enrollment in another math course or permission of instructor.

MAT082
Basic Arithmetic
3 credits 3 periods lecture
Primary emphasis placed on fundamental operations with whole numbers, fractions, decimals, integers, and rational numbers; proportions, and percentages. Other topics include representations of data, geometric figures, and measurement. Prerequisites: LAT201.

MAT083
Arithmetic Review Expanded
5 credits 5 periods lecture
Additional review of basic arithmetic skills. Fundamental operations with whole numbers, common fractions, topics include math anxiety reduction techniques, study skills, and test-taking strategies. Prerequisites: None.

MAT090
Developmental Algebra
5 credits 5 periods lecture
Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications. Prerequisites: Grade of "C" or better in MAT082, or MAT102, or equivalent, or satisfactory score on District placement exam. Course Note: May receive credit for only one of the following: MAT090, MAT091, MAT092, or MAT093.

MAT091
Introductory Algebra
4 credits 4 periods lecture
Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications. Prerequisites: Grade of "C" or better in MAT082, or MAT102, or equivalent, or satisfactory score on District Placement exam. Course Note: May receive credit for only one of the following: MAT090, MAT091, MAT092, or MAT093.

MAT102
Mathematical Concepts/Applications
3 credits 3 periods lecture
A problem solving approach to mathematics as it applies to life and the world of work. Development, demonstration, and communication of mathematical concepts and formulas that relate to measurement, percentage, statistics, and geometry. Prerequisites: Grade of "C" or better in MAT082, or equivalent, or satisfactory score on District placement exam.

MAT120
Intermediate Algebra
5 credits 5 periods lecture
Quadratic, rational, radical, exponential, and logarithmic functions and equations; graphs of quadratic, exponential, and logarithmic functions; equations quadratic in form; operations on rational expressions, radical expressions, and complex numbers; rational exponents; applications. Prerequisites: Grade of "C" or better in MAT090, MAT091, MAT092, MAT093, or equivalent, or a satisfactory score on the District placement exam. Course Note: May receive credit for only one of the following: MAT120, MAT121, or MAT122.

MAT142
College Mathematics
3 credits 3 periods lecture
Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include set theory, probability, statistics, finance, and geometry. Prerequisites: Grade of "C" or better in MAT120 or MAT121 or MAT122 or equivalent, or satisfactory score on District placement exam.

MAT150
College Algebra/Functions
5 credits 5 periods lecture
Analysis and interpretation of the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, modeling and solving real world problems. Additional topics may include matrices, combinatorics, sequences and series, and conics. Prerequisites: Grades of "C" or better in MAT120 or MAT121 or MAT122 or equivalent, or satisfactory score on District placement exam. Course Note: May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187.
MAT151
College Algebra/Functions
4 credits 4 periods lecture
Analysis and interpretation of the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, modeling and solving real world problems. Additional topics may include matrices, combinatorics, sequences and series, and conics. Prerequisites: Grades of "C" or better in MAT120, MAT121, MAT122, equivalent, or satisfactory score on District placement exam. Course Note: May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187.

MAT156
Mathematics for Elementary Teachers I
3 credits 3 periods lecture
Focuses on numbers and operations. Algebraic reasoning and problem solving integrated throughout the course. Prerequisites: Grade of "C" or better in MAT142 or MAT150 or MAT151 or MAT152 or equivalent, or satisfactory score on District placement exam.

MAT157
Mathematics for Elementary Teachers II
3 credits 3 periods lecture
Focuses on measurement, geometry, probability and data analysis. Appropriate technologies, problem solving, reasoning, and proof are integrated throughout the course. Prerequisite: MAT156 or equivalent.

MAT172
Finite Mathematics
3 credits 3 periods lecture
An introduction to the mathematics required for the study of social and behavioral sciences. Includes combinatorics, probability, descriptive statistics, matrix algebra, linear programming and the mathematics of finance. Includes applications of technology in problem-solving. Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or MAT187 or equivalent, or satisfactory score on District placement exam.

MAT182
Plane Trigonometry
3 credits 3 periods lecture
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.

MAT187
Precalculus
5 credits 5 periods lecture
A precalculus course combining topics from college algebra and trigonometry. Preparation for analytic geometry and calculus. May receive credit for only one of the following: MAT150, MAT151, MAT152, or MAT187. Prerequisites: Grade of "B" or better in MAT120, or MAT121, or MAT122, or equivalent, or satisfactory score on a placement test. Course Note: Strongly recommended that students have some knowledge of trigonometry.

MAT206
Elements of Statistics
3 credits 3 periods lecture
Basic concepts and applications of statistics, including data description, estimation and hypothesis tests. Prerequisites: Grade of "C" or better in MAT150 or MAT151 or MAT152 or equivalent or satisfactory score on District placement exam.

MAT212
Brief Calculus
3 credits 3 periods lecture
Introduction to the theory, techniques and applications of the differential and integral calculus of elementary functions with problems related to business, life, and the social sciences. Prerequisites: Grade of "C" or better in MAT150, or MAT151, or MAT152, or MAT187 or equivalent, or satisfactory score on District placement exam.

MAT220
Analytic Geometry and Calculus I
5 credits 5 periods lecture
Topics from analytic geometry with special emphasis on inequalities and absolute value expressions, limits, continuity, the fundamental principles and formulae for differential and integral calculus along with their applications to geometry and mechanics, the mean value theorems and the fundamental theorem of calculus. May receive credit for only one of the following: MAT220 and MAT221. Prerequisites: Grade of "C" or better in (MAT150 or MAT151 or MAT152) and MAT182 or MAT187 or equivalent, or satisfactory score on District placement exam.

MAT225
Elementary Linear Algebra
3 credits 3 periods lecture
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 MAT121 or MAT220, or MAT221, or equivalent.

MAT230
Analytic Geometry and Calculus II
5 credits 5 periods lecture
Continuation of MAT220 including work on the elementary transcendental functions, techniques of integration, vector functions, and infinite series. May receive credit for only one of the following: MAT230 or MAT231. Prerequisites: Grade of "C" or better in MAT220 or MAT221 or equivalent.

MAT240
Calculus with Analytic Geometry III
5 credits 5 periods lecture
Vector-valued functions of several variables, multiple integration, introduction to vector analysis. Prerequisites: Grade of "C" or better in MAT230 or MAT231.

MAT261
Differential Equations
4 credits 4 periods lecture
Ordinary differential equations with applications including Laplace transforms with numerical methods. Prerequisites: Grade of "C" or better in MAT230, or MAT231, or equivalent.
MHL/MTC/MUC/MUP – Music

MHL140
Survey of Music History
3 credits 3 periods lecture
Study of composers, compositions, styles, and periods in music history. Prerequisites: None.

MHL143
Music in World Cultures
3 credits 3 periods lecture
Non-European musical traditions including the study of music in rituals, musical instruments and the impact of cultures on musical styles. Prerequisites: None.

MHL145
American Jazz and Popular Music
3 credits 3 periods lecture
The study of cultural and social contributions to the evolution of American jazz and popular music from the mid-1800's to present. Prerequisites: None.

MHL146
Survey of Broadway Musicals
3 credits 3 periods lecture
Survey of Broadway musicals traced from their origins to the present viewed in their cultural, political, and socio-economic contexts. Emphasis on stylistic periods, composers, lyricists, directors, and choreographers. Prerequisites: None.

MHL147
Music of African-American Cultures
3 credits 3 periods lecture
African-American music traced from its origin in Africa to the present. Includes spirituals, blues, gospel, jazz, and classical styles. Prerequisites: None.

MHL153
Rock Music and Culture
3 credits 3 periods lecture
History of Rock music and how cultural, social, political, and economic conditions have shaped its evolution. Prerequisites: None.

MTC101
Introduction to Music Theory
3 credits 3 periods lecture
Designed to develop written and aural skills necessary for advanced study of music theory and skills. Recommended for music majors. Prerequisites: None.

MTC103
Introduction to Aural Perception
2 credits 2 periods lecture
An introduction to the aural skills necessary to hear relationships of intervals, rhythms, melody, and harmony in music. May be repeated for a total of four (4) credit hours. Prerequisites: None.

MTC105
Music Theory I
3 credits 3 periods lecture
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. Corequisite: MTC106.

MTC106
Aural Perception I
1 credit 2 periods lecture + lab
The development of listening and performing skills through dictation, sight singing and keyboard harmony. Prerequisites: None. Corequisite: MTC105.

MTC155
Music Theory II
3 credits 3 periods lecture
A continuation of Music Theory I with emphasis on harmony and part-writing procedures. Prerequisites: MTC105. Corequisites: MTC156.

MTC156
Aural Perception II
1 credit 2 periods lecture + lab
A continuation of Aural Perception I, including harmonic practices. Prerequisites: None. Corequisites: MTC155.

MTC190
Computer-Aided Music Notation
3 credits 4 periods lecture + lab
Introduction to computer-aided music notation, culminating in editing and producing publication-quality music scores. Ability to read music notation required. Prerequisites: Permission of instructor.

MTC191
Electronic Music I
3 credits 4 periods lecture + lab
An introduction to producing music with Musical Instrument Digital Interface (MIDI) configuration consisting of computers, printers, synthesizers, and other compatible MIDI instruments. Prerequisites: None.

MTC192
Electronic Music II
3 credits 4 periods lecture + lab
Continued study of the production of music with Musical Instrument Digital Interface (MIDI) configurations. Emphasis on more complex configurations and their applications in song arrangements. Prerequisites: MTC191.

MTC205
Music Theory III
3 credits 3 periods lecture
The study of chromatic harmony and melody, modulation techniques and expanded chords. The analysis of formal structure. Prerequisites: MTC155. Corequisites: MTC206.

MTC206
Aural Perception III
1 credit 2 periods lecture + lab
A development of listening and performing skills, including an introduction of chromatic harmonic techniques and concepts of style. Prerequisites: None. Corequisites: MTC205.

MTC255
Music Theory IV
3 credits 3 periods lecture
A continuation of Music Theory III, including 20th century theories and techniques. Prerequisites: MTC205. Corequisites: MTC256.

MTC256
Aural Perception IV
1 credit 2 periods lecture + lab
A continuation of Aural Perception III, including extended chords. Prerequisites: None. Corequisites: MTC255.
MUC109
Music Business: Merchandising & the Law
3 credits 3 periods lecture
Operation, scope, and career opportunities in the music business. Focuses on music in the marketplace, songwriting, publishing, copyright procedures, and business affairs, agents, artist management, and concert production. Prerequisites: None.

MUC110
Music Business: Recording and Mass Media
3 credits 3 periods lecture
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.

MUC195
Studio Music Recording I
3 credits 5 periods lecture + lab
Basic principles of studio sound recording. Emphasis on musical acoustics, operation of recording equipment, studio setups, and multitrack recording. Includes studio session process and musical production decisions. Prerequisites: None.

MUC196
Studio Music Recording II
3 credits 5 periods lecture + lab
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.

MUC295
Studio Music Recording III
3 credits 6 periods lecture + lab
Producing and engineering a recording project. Covers how recording studios work and how recording projects are organized from pre-production through delivery of the final mix. Prerequisites: MUC196.

MUC295AA
Self Promotion for Music
1 credit 1 period lecture
Career goal development. Includes self-presentation and communication skills, keeping files and records, and developing self-promotional materials. Prerequisites: None.

MUC295AB
Portfolio for Music
1 credit 1 period lecture
Includes developing a portfolio that demonstrates music related skills and marketing of songs, recordings, and musical performances. Prerequisites: MUC295AA.

MUC297AB
Music Internship
2 credits 2 periods lecture + lab
Music Internship work experience in a business or industry. Eighty (80) hours of designated work per credit totaling 160 hours per semester. A maximum of 12 credits allowed. Prerequisites: Departmental approval.

MUP101, MUP151, MUP201, MUP251
Private Instruction
1 credit 0.6 periods lecture + lab
Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. Prerequisites: None.

MUP102, MUP152, MUP202, MUP252
Private Instruction
2 credits 1.2 periods lecture + lab
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
0.5 credit 0.5 period lecture
Attendance at concerts, recitals and music lectures on and off campus. Required each semester for all music majors. Prerequisites: None.

MUP131
Class Piano I
2 credits 3 periods lecture + lab
Development of beginning piano techniques and the fundamentals of music including basic hand position, music reading skills of melodic and harmonic material, major scales, transposition, and harmonizations including the I, IV, V7 chords. Prerequisites: None.

MUP132
Class Piano II
2 credits 3 periods lecture + lab
Continuation of Piano I with emphasis on elementary piano techniques including major and minor scales, transposition, improvisation, and sight reading. Prerequisites: MUP131 or permission of instructor.

MUP133
Class Voice I
2 credits 3 periods lecture + lab
Introduction to the fundamentals of vocal production. Emphasis on breathing techniques, tone production and performances in class of solo vocal literature. Prerequisites: None.

MUP134
Class Voice II
2 credits 3 periods lecture + lab
Continuation of Class Voice I including the elements of stage presence and diction. Prerequisites: MUP133 or permission of instructor.

MUP153
A Cappella Choir
2 credits 5 periods lecture + lab
A mixed choir designed to emphasize choral techniques and performance of all styles of choral literature. Public performances are scheduled during the year including a concert tour. Auditions may be required. May be repeated for credit. Prerequisites: None.

MUP155
Handbell Choir (Bell Canto)
1 credit 3 periods lecture + lab
Emphasis on practical and performing skills in bell ringing. Preparation of all styles of bell literature. Scheduled public performances during the year. Course Note: May be repeated for credit. Prerequisites: None.
MUP157
Women's Chorus
1 credit 3 periods lecture + lab
A women's chorus designed to emphasize choral technique and performance of all styles of appropriate choral literature. Public performances are scheduled during the year. Auditions may be required. May be repeated for credit. Prerequisites: None.

MUP160
Orchestra
2 credits 5 periods lecture + lab
A class designed to emphasize orchestral ensemble techniques and the preparation of all styles of orchestral literature. Public performances are scheduled during the year. Auditions may be required. May be repeated for credit. Prerequisites: None.

MUP161
Community Band
1 credit 3 periods lecture + lab
Emphasis on college/community participation and the preparation of wind literature for public performance. Auditions may be required. May be repeated for credit. Prerequisites: None.

MUP162
Band
2 credits 5 periods lecture + lab
A class designed to emphasize instrumental techniques and the preparation of all styles of band literature. Public performances are scheduled during the year. Auditions may be required. May be repeated for credit. Prerequisites: None.

MUP163
Jazz Ensemble
1 credit 3 periods lecture + lab
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
2 credits 2 periods lecture
Theoretical and performance skills in many styles of jazz improvisation. May be repeated for a total of six (6) credit hours. Prerequisites: None.

MUP165
Jazz Improvisation II
2 credits 3 periods lecture
Intermediate theoretical and performance skills in many styles of jazz improvisation. May be repeated for a total of six (6) credit hours. Prerequisites: MUP164 or permission of instructor.

MUP181
Chamber Music Ensembles
1 credit 2 periods lecture + lab
Practical and performance experience in instrumental, vocal, and mixed ensembles. May be repeated for credit. Prerequisites: None.

MUP182
Chamber Singers
1 credit 3 periods lecture + lab
Practical and performance experience in various styles of vocal music. Open to all students on the basis of auditions. May be repeated for credit. Prerequisites: None.

MUP225
Class Guitar I
2 credits 3 periods lecture + lab
Emphasis on note-reading and folk-style harmonic accompaniment. Includes finger-style playing. Stresses development of efficient practicing techniques and proper sitting and hand positions. Prerequisites: None.

MUP226
Class Guitar II
2 credits 3 periods lecture + lab
Note-reading range including second position and parts of higher positions. Classical, popular, Latin, and other styles of music. Theory including scales, keys, and chord construction. Technical exercises of both hands. Prerequisites: MUP225 or permission of instructor.

MUP227
Class Guitar III
2 credits 3 periods lecture + lab
Additional fingerboard positions. Ensemble techniques and performance. Prerequisites: MUP226 or permission of instructor.

MUP228
Class Guitar IV
2 credits 3 periods lecture + lab
Advanced fingerboard positions. Duet and trio performances. Advanced ensemble techniques. Prerequisites: MUP227 or permission of instructor.

MUP231
Class Piano III
2 credits 3 periods lecture + lab
Development of intermediate piano techniques including selected solo literature, transposition of harmonic patterns, and secondary dominants. Prerequisites: MUP132 or permission of instructor.

MGT105
Leadership for Citizenship
1 credit 1 period lecture
Characteristics and types of leaders, responsibilities of leadership, and ethics of leadership as related to citizenship. Prerequisites: None.

MGT119
Introduction to Credit Unions
3 credits 3 periods lecture
Introduction to credit unions, their structures, legal authority for existence, regulation and insurance, and role in business/society. Prerequisites: None.

MGT120
Credit Union Operations
3 credits 3 periods lecture
Overview of credit union operations including member services, credit granting, collections, marketing, financial counseling laws, and regulations as they apply to credit union operations. Prerequisites: MGT119 or departmental approval.
MGT/BTO148
Office Ethics and Culture
2 credits 2 periods lecture
Ethical issues and standards in the office; making ethical choices. Relationships and attitudes in the office. Office politics. Prerequisites: None.

MGT101
Business Organization and Management
3 credits 3 periods lecture
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.

MGT175
Management and Leadership I
3 credits 3 periods lecture
Covers management concepts and applications for business, industry, and government organizations. Prerequisites: None.

MGT229
Management and Leadership II
3 credits 3 periods lecture
Includes practical applications of activities, issues and problems related to current managerial and supervisory skills and talents. Prerequisites: MGT229 or departmental approval.

MGT259
Management Seminar
1 credit 1 period lecture
Classroom portion of the management internship experience, including student development of specific job-related objectives to be accomplished at the work site. Exploration of general business and specific work-related topics in a seminar setting. May be repeated for a total of two (2) credits. Prerequisites: Departmental approval. Corequisites: MGT260AA.

MGT260AA
Management Internship
3 credits 15 periods lab
Laboratory portion of management seminar course. Fifteen hours weekly. Supervised and evaluated by internship coordinator. May be repeated for a total of six (6) credits. Prerequisites: Departmental approval. Corequisites: MGT259.

MGT276
Personnel/Human Resources Management
3 credits 3 periods lecture
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
3 credits 3 periods lecture
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.

MGT253
Owning and Operating a Small Business
3 credits 3 periods lecture
Starting, organizing, and operating a small business, including location, finance management processes, advertisement and promotion, credit, inventory control and ethics. Prerequisites: None.

MGT251
Human Relations in Business
3 credits 3 periods lecture
Analysis of motivation, leadership, communications, and other human factors. Cultural differences that may create conflict and affect morale within organizations. Prerequisites: None. MGT101, or MGT175, or MGT229 suggested but not required.

MIS – Military Science

MIS101
Introduction to the Military I
3 credits 5 periods lecture & lab (Fall only)
Overview of mission, organization and structure of the Army and its role in national defense, discussion of current military issues. Prerequisites: None.

MIS102
Introduction to the Military II
3 credits 5 periods lecture & lab (Spring only)
Introduces problem-solving methods, critical thinking, decision-making, and group cohesion as applied in a military environment. Prerequisites: MIS101.

MIS201
Introduction to Leadership Dynamics I
3 credits 5 periods lecture & lab (Fall only)
Introduces interpersonal dynamics involved in military team operations, theory and application of military leadership principles. Prerequisites: None.

MIS202
Introduction to Leadership Dynamics II
3 credits 5 periods lecture & lab (Spring only)
Introduces interpersonal dynamics involved in military team operations, theory and application of military leadership principles. Prerequisites: MIS201.

MIS294
Ranger Fitness
1 credit 3 periods lecture + lab
Beginning instruction in adapted physical activities and a variety of sports: golf, scuba, karate, judo, handball, equitation, tennis, swimming, weight training, gymnastics and other activities. May be repeated for credits. Prerequisites: Must be concurrently enrolled in MIS101, or MIS102, or MIS201, or MIS202.
**MKT – Marketing**

MKT/TEC109
**Introduction to Fashion Merchandising**
3 credits 3 periods lecture
Explores the various levels and specialized segment of the fashion industry, the principles of fashion, the fundamentals of merchandising apparel, consumers’ influence on demand and marketing activities. **Prerequisites:** None.

MKT/TEC151
**Display and Visual Merchandising**
3 credits 4 periods lecture + lab
An examination of the principles of design including line, color, balance, and texture as they relate to the display of merchandise. Participation in displays, field trips, and individual projects. **Prerequisites:** None.

MKT/TEC200
**Retail Buying**
3 credits 3 periods lecture
Examines management/buyer role in investment, pricing, planning, controlling sales and inventories. **Prerequisites:** None. Any BPC/CIS spreadsheet course recommended.

MKT263
**Advertising Principles**
3 credits 3 periods lecture
Introduces the advertising function within business, including media study, creative strategies, and advertising campaigns. **Prerequisites:** None. MKT271 suggested, but not required.

MKT267
**Principles of Salesmanship**
3 credits 3 periods lecture
Analyzes and applies the steps and techniques used in personal selling. Highlights the role of the professional sales representative and his/her functions as they relate to the company’s mission and customer expectations. **Prerequisites:** None.

MKT268
**Merchandising**
3 credits 3 periods lecture
Surveys structure and operation of retail organizations. Emphasizes merchandising to include price, location, time promotion and quantity. **Prerequisites:** None. MKT271 suggested but not required.

MKT271
**Principles of Marketing**
3 credits 3 periods lecture
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.

MKT/TEC274AA
**Fashion Merchandising Study Tour**
1 credits 5 periods lab
A tour of the retail merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career. **Prerequisites:** Department approval.

MKT/TEC274AB
**Fashion Merchandising Study Tour**
2 credits 10 periods lab
A tour of the retail merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career. **Prerequisites:** Department approval.

MKT/TEC274AC
**Fashion Merchandising Study Tour**
3 credits 15 periods lab
A tour of the retail merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career. **Prerequisites:** Department approval.

**MKT – Marketing**

MKT/CIS140
**Survey of Multimedia Technology**
2 credits 3 periods lecture + lab
Introduction to multimedia technology and its uses. Overview of the various hardware and software used in developing and delivering multimedia. Emphasis on how multimedia is used in education and training. Provides a basic understanding of the process used to define and develop multimedia applications. **Prerequisites:** CIS105, or permission of instructor.

MKT/ADA/ART184
**Computer Animation**
3 credits 6 periods lecture + lab
The art of animation (animated sequences, special effects, titles, etc.) using the computer. Construction characters, background graphics, color, scaling, storyboard, cells, timing, editing, and surface rendering. Screening and discussion of selected animated short films and videos. **Prerequisites:** ART100, or ART111, or ART116, or permission of instructor.

MKT/ART185
**3-D Modeling for Animation**
3 credits 6 periods lecture + lab
Basic concepts of 3-D modeling. Anatomy of computer geometry; basic elements that make computer models-cubes, surfaces, nurbs, and polygons. 3-D translation, shading, materials, and rendering. **Prerequisites:** ART/MKT184 or ART/MMT184AC or permission of the instructor.

MKT/ART190
**Art of Web Site Design**
3 credits 6 periods lecture + lab
Print vocabulary, relationships, and typographic style for HTML and World Wide Web publication. Discussion of color, proportion, and design emphasis. Producing Web sites using HyperText Markup Language (HTML), digital text, and graphics to produce artistic form and content for the Web. **Prerequisites:** ART180AB or ART180AC or ART180AE or permission of instructor.

MKT/VPT216
**Multimedia Project Management**
3 credits 6 periods lecture + lab
Interactive video and multimedia project management including defining, analyzing, designing, and validating interactive/multimedia applications; building and managing development and production teams; planning, budgeting, and scheduling; interactive/multimedia authoring; project implementation; and writing RFP’s (Request For Proposal). **Prerequisites:** CIS/MMT140, or permission of instructor.

MKT/ADA/ART284
**Intermedia Animation**
3 credits 6 periods lecture + lab
Elements of electronic animation with interactive text graphics, photography, sound, film, and video construction. **Prerequisites:** ADA/ART/MMT184 or permission of instructor.
MST/ELT292
Multimedia Update
1 credit 2 periods lecture + lab
Exploration and comparative analysis of the newest hardware and software products and packages on the market designed to enhance or replace existing multimedia technology. Prerequisites: (CIS/ELT140 and CIS141, any module), or permission of instructor.

MST – Microsoft Technology

MST140
Microsoft Networking Essentials
3 credits 4 periods lecture + lab
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 BPC112AB suggested but not required.)

MST150
Microsoft Windows Professional
3 credits 4 periods lecture + lab
Knowledge and skills necessary to perform day-to-day administration tasks in a Microsoft Windows-based network. Preparation for Microsoft certification examination. Prerequisites: None. CIS190, or CNT140, or MST140 suggested but not required.

MST152
Microsoft Windows Server
4 credits 5 periods lecture + lab
Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Windows Server. Preparation for Microsoft certification examination. Prerequisites or Corequisites: Any MST150 course or permission of instructor.

MST152DB
Microsoft Windows 2003 Server
4 credits 5 periods lecture + lab
Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Microsoft Windows 2003 Server. Preparation for Microsoft certification examination. Prerequisites or Corequisites: Any MST150 course or permission of instructor.

MST155
Implementing Windows Network Infrastructure
3 credits 4 periods lecture + lab
Knowledge and skills to install, configure, maintain, and support a Microsoft Windows network infrastructure. Preparation for Microsoft certification examination. Prerequisites or Corequisites: Any MST152 course or permission of instructor.

MST232
Managing a Windows Network Environment
3 credits 4 periods lecture + lab
Knowledge and skills necessary to administer Windows network operating systems. Preparation for Microsoft certification examination. Prerequisites: MST140, MST150, and MST152, or permission of instructor.

NAV – Navajo

NAV101
Elementary Navajo I
4 credits 4 periods lecture
Basic grammar, pronunciation, and vocabulary of the Navajo language. Practice of listening, speaking, reading, and writing skills. Includes the study of the Navajo culture with participation in an off-campus Navajo cultural event. Prerequisites: None.

NAV115
Beginning Navajo Conversation I
3 credits 3 periods lecture
Beginning conversational Navajo. Focuses on basic sentence structure, pronunciation, and vocabulary. Develops basic speaking, reading, writing skills in the Navajo language. Prerequisites: None.

NAV116
Beginning Navajo Conversation II
3 credits 3 periods lecture
Continued development of skills in conversational Navajo. A review of the major grammatical and pronunciation elements. Prerequisites: NAV116, or equivalent, or permission of instructor.

NAV226
Intermediate Navajo Conversation II
3 credits 3 periods lecture
Continued development of skills in conversational Navajo with a review of grammatical elements. Prerequisites: NAV225, or equivalent, or permission of instructor.

NUR – Nursing Science: Basic

NUR156
Nurse Assisting
2 credits 2 periods lecture
Role of the nursing assistant for clients across the wellness/illness continuum within the nurse assisting scope of practice. Introduction to problem solving process specific to meeting the basic and holistic needs of clients. Professional communication skills essential for the nursing assistant. Nursing interventions to ensure the needs and safety of the client. Specific types of diseases, conditions and alterations in behavior of the client. Principles of nutrition and fluid balance. Special needs of the elder client in the acute and long-term care settings. Basic emergency care skills and procedures. Prerequisites or Corequisites: [HCC130 or (HCC130A, HCC130B, HCC130C, HCC130D, HCC130E, and HCC130AF)] and HCC145AA, or equivalent. Corequisites: NUR157. Course Notes: NUR156 and NUR157 must be successfully completed concurrently to meet program requirements.

NUR157
Nurse Assisting Lab
2 credits 6 periods lab
Demonstration of problem solving, professional behavior and therapeutic communication skills. Demonstration of caring behaviors and ensuring environmental safety for the client. Provides opportunity for the development of clinical competency in the performance of selected nursing assisting skills and procedures through participation in the care of clients. Prerequisites: Completed Health and Safety Documentation Checklist (Proof of immunity or immunizations for Rubella, Rubeola, Mumps, Varicella, Hepatitis B, current TB testing, and current Health Care Provider CPR card) and completed Health Declaration form. Corequisites: NUR156. Course Notes: NUR156 and NUR157 must be successfully completed concurrently to meet program requirements.
NUR161 Nursing Process/Critical Thinking I  
3 credits 3 periods lecture  
Overview of nursing concepts and theories focusing on meeting basic human needs across the life span based on the wellness/illness continuum within the practical nurse scope of practice. Theoretical concepts focus on care of the well client, elderly client, and clients with selected alterations in health and psychological/mental health disorders. Emphasis on the role of the practical nurse in the nursing care plan utilizing established nursing diagnoses. Focus on the development of the critical thinking process related to nursing care of clients in acute care and community settings. **Prerequisites:** Admission into the nursing program. **Corequisites:** NUR169 or permission of Nursing Department chairperson. **Course Notes:** Nursing Process/Critical Thinking course and Nursing Science course must be successfully completed concurrently to meet program requirements.

NUR163 Health Assessment/Health Promotion I  
1 credit 3 periods lab  
Emphasis on basic health assessment and history skills and promotion of wellness by using holistic nursing assessments for clients. Includes use of healthy lifestyle strategies and primary prevention. **Prerequisites:** Admission into the nursing program. **NOTE:** Course changes not available at time of printing. Consult with Academic Advisement.

NUR167 Pharmacology & Medication Administration I  
1 credit 3 periods lab  
Provides basic pharmacology knowledge and skills to administer medications. Emphasis placed on developing the role of the nurse using critical thinking skills for safe practice in the administration of medications. **Prerequisites:** Admission into the nursing program.

NUR169 Nursing Science I  
3 credits 9 periods lab  
Development of clinical competency in the performance of selected nursing skills and procedures. Provides for participation in the care of clients experiencing problems of alteration in health and selected mental health disorders. Provides for clinical practice experiences with individuals and families in a variety of acute and community settings. Application of holistic nursing concepts and theories related to health promotion, disease/illness prevention, and health restoration of individuals. **Prerequisites:** Admission into the nursing program. **Corequisites:** NUR161 or permission of Nursing Department chairperson. **Course Notes:** Nursing Process/Critical Thinking course and Nursing Science course must be successfully completed concurrently to meet program requirements.

NUR181 Nursing Process/Critical Thinking II  
3 credits 3 periods lecture  
Focus on nursing concepts and theories to meet basic human needs across the life span based on the wellness/illness continuum. Emphasis on the nursing process related to pediatric and adult clients with selected alterations in health. Introduction to care of the well childbearing client and childbearing family. Continuation of the role of the practical nurse in planning nursing care and applying established nursing diagnoses for clients. Emphasis on the utilization of critical thinking processes related to nursing care of clients in acute care and community settings. **Prerequisites:** NUR161, NUR163, NUR169, and (HCR240 or HCR240AA). **Corequisites:** NUR189 or permission of Nursing Department chairperson. **Course Notes:** Nursing Process/Critical Thinking course and Nursing Science course must be successfully completed concurrently to meet program requirements.

NUR185 Developing the Nurse’s Role I  
1 credit 1 period lecture  
Overview of roles in nursing with emphasis on transition from nursing assistant to practical nurse. Includes introduction of the core values of the MCCD nursing programs, nursing history, standards, and scope of practice. Introduces concepts and skills required of the practical nurse, and application of communication techniques and delegation to teamwork and leadership. **Prerequisites:** NUR161, NUR163, NUR167, NUR169, and admission into the nursing program.

NUR187 Pharmacology & Medication Administration II  
1.5 credits 1.5 periods lecture  
Overview of selected drug classifications and groupings. Emphasis on principles of drug metabolism and effects, interactions and adverse reactions, and nursing implications for safe practice. **Prerequisites:** (HCR240 or HCR240AA), NUR161, NUR163, NUR167 and NUR169. **NOTE:** Course changes not available at time of printing. Consult with Academic Advisement.

NUR189 Nursing Science II  
4 credits 12 periods lab  
Continued application of holistic nursing concepts and theories related to health promotion, disease/illness prevention and health restoration of individual and families. Provides continued opportunity for the development of clinical competency in the performance of selected nursing skills, participation in the care of clients across the life span including clients with alterations in health. Provides experiences with individuals, families, and small groups of clients in a variety of acute care, and community settings. Application of nursing concepts and theories related to the development of care plans, client teaching, and discharge planning. **Prerequisites:** NUR161, NUR163, NUR169, and (HCR240 or HCR240AA). **Corequisites:** NUR181 or permission of Nursing Department chairperson. **Course Notes:** Nursing Process/Critical Thinking course and Nursing Science course must be successfully completed concurrently to meet program requirements.

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**For additional information on PC program competencies, visit:**

http://www.dist.maricopa.edu/academic/curric/progpc.php

**For additional information on MCCCD course competencies, visit:**

http://www.dist.maricopa.edu/academic/curric/cs.php
NUR261 Nursing Process/Critical Thinking III
3 credits 3 periods lecture
Focus on nursing concepts and theories to meet complex human needs across the life span based on the wellness/illness/continuum in a variety of acute and chronic alterations in health and psychiatric/mental health disorders. Emphasis on utilizing critical thinking skills to plan holistic care through the nursing process for groups of clients with selected acute and chronic alterations in health and psychiatric/mental health disorders. Prerequisites: NUR181, NUR185, NUR187, NUR189, (HCR240 or HCR240AB) or Integrated Competency Assessment Network (ICAN) placement.
Corequisites: NUR269 or permission of Nursing Department chairperson.
Course Notes: Nursing Process/Critical Thinking course and Nursing Science course must be successfully completed concurrently to meet program requirements.

NUR263 Health Assessment & Health Promotion II
1 credit 3 periods lab
Use of advanced, specialized, and holistic assessments to restore optimal wellness for clients across the life span. Emphasis on active involvement and use of resources, risk reduction, prevention, and education strategies and programs for specific communities. Prerequisites: NUR163 or ICAN placement. NOTE: Course changes not available at time of printing. Consult with Academic Advisement.

NUR267 Pharmacology and Medication Administration III
1 credit 2 periods lecture + lab
Provides the knowledge and skills to safely prepare and administer intravenous medications and solutions. Emphasizes management of clients receiving complex therapies such as blood and blood products, parenteral nutrition, and pain management. Includes an overview of medications used in emergency and critical care situations across the lifespan. Emphasis on pharmacokinetics, safe preparation and administration, monitoring, and documentation of client responses. Prerequisites: NUR187, or NCE214OP, or Integrated Competency Assessment Network (ICAN) placement. NOTE: Course changes not available at time of printing. Consult with Academic Advisement.

NUR269 Nursing Science III
5 credits 15 periods lab
Application of critical thinking skills through the nursing process to clients and families with acute alterations in health and psychiatric/mental health disorders. Provides for the development of clinical and cultural competency and the continued development of selected nursing skills and procedures within the scope of the professional nurse. Holistic care of clients, families, and small groups in a variety of acute and community health care settings. Application of professional nursing concepts and theories related to health education/promotion for clients, families and small groups. Prerequisites: NUR181, NUR185, NUR187, NUR189, (HCR240 or HCR240AB or NCE214OP), or Integrated Competency Assessment Network (ICAN) placement.
Corequisites: NUR261 or permission of Nursing Department chairperson.
Course Notes: Nursing Process/Critical Thinking course and Nursing Science course must be successfully completed concurrently to meet program requirements.

NUR281 Nursing Process & Critical Thinking IV
3 credits 3 periods lecture
Emphasis on nursing concepts and theories to meet complex needs of critically ill and high-risk clients with multiple system alterations in health. Includes high risk perinatal, pediatric, and adult clients in acute care and community settings. Focus on application of critical thinking skills to modify a holistic plan of care. Highlights the role of the professional nurse in health education/promotion, illness prevention and restorative care. Prerequisites: (NUR261, NUR263, NUR267 and NUR269), or Integrated Competency Assessment Network (ICAN) placement.
Corequisites: NUR281 or permission of Nursing Department chairperson.
Course Notes: Nursing Process/Critical Thinking course and Nursing Science course must be successfully completed concurrently to meet program requirements.

NUR285 Developing the Nurse's Role II
1 credit 1 period lecture
Emphasis on synthesis of previously learned concepts to generate a plan for lifelong, professional role development. Concepts include role transition, professional organizations, legal issues, and licensure. Prerequisites: (NUR261, NUR263, NUR267, and NUR269), or NCE214OP, or Integrated Competency Assessment Network (ICAN) placement.

OAS - Office Automation Systems

OAS101 Computer Typing I: Keyboarding and Formatting
3 credits 5 periods lecture + lab
(Offers days only)
Keyboard mastery; letters, tables, and reports; office production; and manuscripts. Prerequisites: None.

OAS101AA Computer Typing I: Keyboard Mastery
1 credit 1.7 periods lecture + lab
Incorporates correct touch typing principles. Prerequisites: None.
OAS101AB
Computer Typing I: Letters, Tables, and Reports
1 credit 1.7 periods lecture + lab
Letter, table, and report formatting. Prerequisites: OAS101AA or permission of department/division.

OAS101AC
Computer Typing I: Production and Manuscript
1 credit 1.7 periods lecture + lab
Simple office projects and manuscripts. Prerequisites: OAS101AB or permission of department/division.

OAS102
Computer Typing II: Document Production
3 credits 5 periods lecture + lab
Arrangement of letters, memos, manuscripts, and tabulation; speed/accuracy improvement. Prerequisites: OAS101 or permission of department/division.

OAS103AA
Computer Typing: Skill Building I
1 credit 1.7 periods lecture + lab
Individual progression on speed/accuracy drills. Prerequisites: Ability to touch type at 25 words per minute or permission of department/division.

OAS103AB
Computer Typing: Skill Building II
1 credit 1.7 periods lecture + lab
Progression on speed/accuracy drills. Prerequisites: OAS103AA or permission of department/division.

OAS103AC
Computer Typing: Skill Building III
1 credit 1.7 periods lecture + lab
Progression on speed/accuracy drills. Prerequisites: OAS103AB or permission of department/division.

OAS106
Basic Machine Transcription
3 credits 5 periods lecture + lab
Mastery of transcribing techniques with emphasis on language skills and document formatting. Prerequisites: OAS101, or permission of department/division.

OAS108
Business English
3 credits 3 periods lecture
(Days in Fall & evenings in Spring)
Comprehensive coverage of correct use of English grammar including spelling, punctuation, capitalization, and number style mechanics in a business context. Prerequisites: None.

OAS/BPC111AA
Computer Keyboarding I
1 credit 1.7 periods lecture + lab
Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols. Prerequisites: None.

OAS/BPC113
Micro-Alphabetic Indexing
1 credit 1.7 periods lecture + lab
Mastery of essential microcomputer filing skills. Emphasis on indexing and alphabetizing individual and business names; subject, geographic, and numeric methods; and cross-referencing. Prerequisites: None.

OAS118
10-Key by Touch
1 credit 1.7 periods lecture + lab
Touch system of numeric keys on ten-key pads. Prerequisites: None.

OAS119
Basic Data Entry Activities
1 credit 12 periods lab
Recognition of errors in mechanics, format, and content in any written communication. Prerequisites: ENG101, or OAS108, or permission of instructor.

OAS121
Techniques of Proofreading
1 credit 1 period lecture + lab
Recognizes the ability to type, correct, and print a variety of documents. Prerequisites: None.

OAS201
Computer Typing III: Advanced Document Production
3 credits 5 periods lecture + lab
Mastery of skills and techniques used in the production of letter, manuscript, and statistical documents; decision making; business/industry standards emphasized. Prerequisites: OAS102 or minimum typing speed of 50 wpm or permission of department/division.

OAS218
Law Office Procedures
3 credits 3 periods lecture
(Evenings, Spring only)
Law office procedures for general and specialty areas of law, including civil, estate planning and probate, business organizations, real estate, and litigation. Coverage of law office personnel, timekeeping, billing, filing, docket control, research, office equipment, legal forms, ethics, and professional associations. Prerequisites: LAS101, OAS201, and OAS225, or permission of program director or department chair.
OAS220
Professional Legal Secretary
4 credits 4 periods lecture
(Evenings, Summer only)
Study of entry-level secretarial duties, including employment options; ethical conduct with office staff and the public; maintaining a professional image; preparing correspondence and other documents such as affidavits and acknowledgments; handling mail; preparing and dictation media. Emphasis on accuracy, use of reference materials, formatting, style, and proofreading. Prerequisites: (LAS101, OAS201, and OAS225), or permission of program director or department chair.

OAS225
Legal Document Preparation
2 credits 3 periods lecture + lab
Introduction to legal terminology and the techniques of keyboarding legal documents. Prerequisites: OAS202 or permission of department/division.

OAS/BPC235DD
WordPerfect: Level II
2 credits 2 periods lecture
Using WordPerfect word processing software features such as math, columns, macros, styles, graphics, sort, outlines, and table of contents. Prerequisites: BPC/OAS135DD or permission of instructor.

OAS/BPC235DK
Word: Level II
2 credits 2 periods lecture
Using Word word processing software to create and name files, edit text, format, and print a variety of documents. Prerequisites: BPC/OAS135DK or permission of instructor.

OAS237
Medical Transcription I
3 credits 5 periods lecture + lab
Development of transcription skills in medical area. Includes operation and care of computers, diskettes, transcribers, and dictation media. Emphasis on accuracy, use of reference materials, formatting, style, and proofreading. Prerequisites: (OAS102, OAS106, OAS181 or HIT170 or HUC170, or equivalent) or permission of department/division.

OAS238
Advanced Machine Transcription/Legal
3 credits 5 periods lecture + lab
Development of recorded transcription skills in legal area. Includes operation of information processing equipment, transcription, and dictation media. Emphasis on transcribing speed and accuracy and use of reference materials. Prerequisites: OAS102, OAS106, or permission of department/division.

OAS241
Medical Transcription II
3 credits 6 periods lecture + lab
Continuation of medical transcription skills with emphasis on speed and accuracy; general medicine, surgery, radiology dictation. Prerequisites: OAS237, or permission of department/division.

OAS242
Medical Transcription III
3 credits 6 periods lecture + lab
Mastery of transcription skills used in the production of health records and medical reports; emphasis on speed and accuracy. Prerequisites: OAS241, or permission of department/division.

OAS243
Medical Transcription Refresher
1 credit 1.7 periods lecture + lab
Review of medical transcription skills. Equipment care and maintenance; use of medical references; transcription of various medical documents; proofreading for accuracy; speed development. Prerequisites: OAS242, or permission of department/division.

OAS246
Medical Transcription Internship
1 credit 5 periods lab
Eighty (80) hours of medical transcription experience in an office setting. Supervision by on-the-job supervisor; evaluation by supervisor and college coordinator. Emphasis on application of medical transcription skills. Prerequisites: OAS241 and permission of instructor or program director.

OAS298
Special Projects
1-3 credits 1-3 periods lab
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment 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.

PED – Physical Education

PED101, PED102, PED201, PED202
Physical Activities
1 credit 2 periods each lecture + lab
Individual, dual, or team sports activities as listed in the schedule of classes. May be repeated for credit. Prerequisites: None.

PED103, PED104, PED203, PED204
Physical Activities
0.5 credit 1 period each lecture + lab
Individual, dual, or team sports activities as listed in the schedule of classes. May be repeated for credit. Prerequisites: None.

PED111
Aerobics
1.5 credits 3 periods lecture + lab
Aerobic activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, aerobic exercise, selected strength exercises, and cool down/stretch. Prerequisites: None.
PED112  
Professional Applications of Fitness Principles  
3 credits 3 periods lecture  
Basic principles of fitness for the prospective fitness professional. Planning and teaching in a fitness program. Topics include exercise risks and safety, weight control, components of fitness, fitness assessment, and exercise programming. **Prerequisites:** None.

PED113  
Weight Training  
1.5 credits 3 periods lecture + lab  
Weight training activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, aerobic exercise, selected strength exercises, and cool down/stretch. **Prerequisites:** None.

PED114  
Fitness  
1.5 credits 3 periods lecture + lab  
Fitness activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, aerobic exercise, selected strength exercises, and cool down/stretch. May be repeated for credit. **Prerequisites:** None.

PED115  
Lifetime Fitness  
2 credits 4 periods lecture + lab  
Fitness activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, aerobic exercise, selected strength exercises, and cool down/stretch. May be repeated for credit. **Prerequisites:** None.

PED116  
Aerobics for Wellness  
2 credits 4 periods lecture + lab  
Aerobic activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, aerobic exercise, selected strength exercises, and cool down/stretch. May be repeated for a total of eight (8) credits. **Prerequisites:** None.

PED117  
Weight Training for Wellness  
2 credits 4 periods lecture + lab  
Weight training activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, selected endurance/strength exercises, and cool down/stretch. May be repeated for a maximum of eight (8) credits. **Prerequisites:** None.

PED125  
Exercise Science  
3 credits 3 periods lecture  
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.

PED/WED130  
Strength Fitness - Physiological Principles & Training Techniques  
3 credits 3 periods lecture + lab  
Principles and techniques of strength training including strength physiology, performance factors, training recommendations, exercise techniques, and program design and management. **Prerequisites:** None.

PED140  
Principles of Safe Exercise  
1 credit 1 period lecture  
Overview of safety concepts and principles for the exercise leader. Includes injury recognition and referral sources; injury prevention; safe use of equipment; contraindicated exercises; proper stretching techniques; basic first aid principles, including CPR and common procedures utilized in classroom emergencies. **Prerequisites:** None.

PED/HCE148  
Exercise Testing  
0.5 credit 1.5 periods lecture + lab  
Study of exercise testing principles as performed under the supervision of a physician. **Prerequisites:** (HCC101, HCC103, HCC105, HCC107, and HCC109), or permission of program director. **Corequisites:** HCE140 or permission of program director.

PED200  
Introduction to Exercise Science & Physical Education  
3 credits 3 periods lecture  
Introductory course for students considering or just beginning a course of study in exercise science and physical education. Overview of each of the disciplines, sub-disciplines, and professions in the cross-discipline field of exercise science/physical education, including historical and philosophical foundations. Course emphasizes the study of physical activity. **Prerequisites:** None.

PED210*  
Movement Analysis*  
1 credit 3 periods lecture + lab  
Practical application of biomechanical, physiological, psychological, and teaching/learning principles in the analysis of skill acquisition and performance. **Prerequisites:** None.*

*PED210 Selected Movement Analysis Modules:  
AF Aerobics  
CR Baseball  
CX Basketball  
HR Fencing  
IH Fitness Activities  
JX Golf  
KF Gymnastics  
IS Individual Sports  
NG New Games  
OA Outdoor Activities  
PR Teaching Practicum  
QV Racquetball  
PT Personal Training  
TP Soccer  
SP Special Populations  
UF Softball  
VH Swimming  
WB Team Sports  
WH Tennis  
WL Track & Field  
WT Volleyball  
XP Weight Training  

PED262*  
Sports Officiating*  
3 credits 3 periods lecture  
Methods, materials and techniques of playing and officiating in [sport]. **Prerequisites:** None.*

*PED262 Sports Officiating Modules:  
AA Baseball/Softball  
AB Football/Basketball  

PED262*  
[Sport] Officiating  
2 credits 2 periods lecture  
Methods, materials, and techniques of playing and officiating in [sport]. May not be repeated for credit. **Prerequisites:** None.*

*PED262 Officiating Modules:  
BN Basketball  
VP Volleyball
**PED265**

**Theory of Coaching**
3 credits 3 periods lecture
Discusses the impact of sports on the American culture, legal liabilities of coaching, principles of a coaching philosophy, the role of teaching skill, physical conditioning and nutrition in coaching, components of team/group psychology and dynamics, motivation and aggression in sport. **Prerequisites:** None. **PED281**, suggested but not required.

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**PHI105**

**Introduction to Ethics**
3 credits 3 periods lecture
Major theories of conduct. Emphasis on normative ethics, theories of good and evil from Plato to the present. **Prerequisites:** None. **PED281**, suggested but not required.

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**PHI224**

**Political Philosophy**
3 credits 3 periods lecture
Predominant figures and theories in Euroamerican political philosophy from Plato to contemporary social/political philosophers. **Prerequisites:** None.

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**PHI/REL/HIS243**

**World Religions**
3 credits 3 periods lecture
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.

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**PHI/REL244**

**Philosophy of Religion**
3 credits 3 periods lecture
Religious language, the existence of God, miracles, and human destiny. **Prerequisites:** None.
POS109
United States Citizenship Preparation
1 credit 1 period lecture
Introduction to American history, constitution, and political institutions as required for the Naturalization (admission to US citizenship) exam. Prerequisites: None.

POS110
American National Government
3 credits 3 periods lecture
Study of the historical backgrounds, governing principles, and institutions, of the national government of the United States. Prerequisites: None.

POS115
Issues in American Politics
3 credits 3 periods lecture
Examination of major issues in current affairs in the fields of politics, economics, social relations, foreign affairs, aesthetics, and others through the reading and viewing of secondary information sources. Prerequisites: ENG101 or ENG107 or equivalent.

POS120
World Politics
3 credits 3 periods lecture
Introduction to the principles and issues relating to the study of international relations. Evaluation of the political, economic, national, and transnational rationale for international interactions. Prerequisites: None.

POS125
Issues in World Politics
3 credits 3 periods lecture
Contemporary issues and factors in international relations. Stress conditions in civil order, trade and international institutions. May be repeated for a total of six (6) credit hours. Prerequisites: None.

POS130
State and Local Government
3 credits 3 periods lecture
Survey of state and local government in the United States. Special attention on Arizona State Government. Prerequisites: None.

POS140
Comparative Government
3 credits 3 periods lecture
Overview and evaluation of the sub-field of comparative politics. Covers various national governments from around the world: their structure, system, method of governance. Examines methods of assessing these governments. Prerequisites: None.

POS180
United Nations Studies
3 credits 3 periods lecture + lab
Historical origins, structural makeup, political and operational characteristics, and legal activities of the United Nations. Analysis of the overall institution’s ongoing utility, productivity and creativity. Prerequisites: None.

POS210
Political Ideologies
3 credits 3 periods lecture
Survey of twentieth century nondemocratic ideologies and movements with emphasis on Marx, Lenin, Mussolini, Hitler, Stalin and Mao. Prerequisites: None.

POS220
U.S. and Arizona Constitution
3 credits 3 periods lecture
Examination of the United States Constitution and the constitution and government of the State of Arizona. Prerequisites: None.

POS221
Arizona Constitution
1 credit 1 period lecture
Examination of the Constitution of the State of Arizona. Equivalent to the second part of POS220. May not enroll in POS220 and POS221 concurrently. Prerequisites: None.

POS222
U.S. Constitution
2 credits 2 periods lecture
Examination of the United States Constitution. Equivalent to the first part of POS220. May not enroll in POS220 and POS222 concurrently. Prerequisites: None.

POS280
Internship Orientation
1 credit 1 period lecture
Preparation for an internship experience and appropriate intern behavior. Prerequisites: Permission of instructor.

POS281AA
Public Policy/Service Internship
3 credits 3 periods lab
Field experience in community service, public policy or public service. May be repeated for a total of nine (9) POS281 credit hours; may not repeat specific internship assignment. Prerequisites: Minimum of 15 credit hours at college granting internship with minimum GPA of 3.0 and permission of instructor. Prerequisite or Corequisite: POS280.

POS281AB
Public Policy/Service Internship
2 credits 2 periods lab
Field experience in community service, public policy or public service. May be repeated for a total of nine (9) POS281 credit hours; may not repeat specific internship assignment. Prerequisites: Minimum of 15 credit hours at college granting internship with minimum GPA of 3.0 and permission of instructor. Prerequisite or Corequisite: POS280.

POS281AC
Public Policy/Service Internship
4 credits 4 periods lab
Field experience in community service, public policy or public service. May be repeated for a total of nine (9) POS281 credit hours; may not repeat specific internship assignment. Prerequisites: Minimum of 15 credit hours at college granting internship with minimum GPA of 3.0 and permission of instructor. Prerequisite or Corequisite: POS280.

POS281AA
Volunteerism for Political Science: A Service Learning Experience
1 credit 1 period lab
Service-learning field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency. May be repeated for a total of four (4) POS282 credit hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of instructor.
Course Descriptions

PSY – Psychology

PSY101
Introduction to Psychology
3 credits 3 periods lecture
To acquaint the student with basic principles, methods and fields of Psychology such as learning, memory, emotion, perception, physiological, developmental, intelligence, social and abnormal. Prerequisites: None.

PSY102
Introduction to Psychology Lab
1 credit 1 period lab
Optional laboratory designed to accompany PSY101. Application of psychological principles in areas such as learning, memory, emotion, motivation, cognition, language, development, personality, and intelligence. Prerequisites or Corequisites: PSY101 or permission of instructor.

PSY/CFS130
Demystifying Adolescence
1 credit 1 period lecture
A holistic overview of the physical, social, and emotional development of adolescents. Emphasis on effective skills necessary for working with adolescents and their families. Prerequisites: None.

PSY132
Psychology and Culture
3 credits 3 periods lecture
Introduces current knowledge about human diversity in behavior and culture using examples from a variety of contexts and nations. Highlights topics in cross-cultural psychology, such as intergroup relations, ethnocentrism, gender, personality, emotion, language, communication, work and health. Emphasis on applications of behavioral and cognitive principles to enhance interactions in a multicultural world. Prerequisites: None.

PSY143
Lesbian, Gay, and Bisexual Studies
3 credits 3 periods lecture
Introduction to the study of lesbian, gay, and bisexual individuals. Includes psychological, developmental, social, biological, historical, and cultural aspects. Review of research literature regarding the etiology and assessment of sexual orientation, prejudice, and discrimination, and family issues. Current issues in lesbian/gay/bisexual studies. Prerequisites: None.

PSY201AA-AC
Selected Issues in Psychology
1-3 credits 1-3 periods lecture
In-depth investigation of topical issues in Psychology. Promotes understanding of the psychological theory, application, and critical reasoning about the selected psychological issues and topics. Potential topics may include, but are not limited to, parenting, gender, applied cognitive psychology, personality, perception, applied-experimental interventions, motivation, emotion, cultural psychology, methodology paradigms, history and systems, development, and intelligence. May be repeated with change of topic. Prerequisites: PSY101 or permission of instructor.

PSY210
Educational Psychology
3 credits 3 periods lecture
Scientific research and psychological principles as they apply to teaching and learning. The role of psychology in educational settings, human diversity, theories of learning, intelligence, memory, creativity, assessment, and factors influencing effective instruction and learning. Prerequisites: PSY101 with a grade of "C" or better or permission of instructor.

PSY215
Introduction to Sport Psychology
3 credits 3 periods lecture
Application of the psychological, behavioral, social, cognitive, and humanistic perspectives in psychology to sport. Includes topics such as optimal performance, correlation, motivation, co-action effect, self-actualization, psycho-behavioral techniques, self-efficacy, and the general health benefits of sport participation. Prerequisites: PSY101 with a grade of "C" or better or permission of instructor.

PSY218
Health Psychology
3 credits 3 periods lecture
Behavioral and mental foundations of health, wellness, illness, and disease, and psychological dimensions of medical intervention. Prerequisites: PSY101 with a grade of "C" or better, or permission of instructor.

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

PSY231
Laboratory for Statistics
1 credit 2 periods lab
Applications of inferential and descriptive statistics to computers in the field of psychology. Corequisites: PSY230.
PSY235
Psychology of Gender Differences
3 credits 3 periods lecture
To assess historical and psychological perspectives on women and men and to evaluate contemporary viewpoints regarding the psychology of women and men. Prerequisites: PSY101 with a grade of "C" or better or permission of instructor.

PSY240
Developmental Psychology
3 credits 3 periods lecture
Human development from conception through adulthood. Includes: physical, cognitive, emotional and social capacities that develop at various ages. Recommended for students majoring in nursing, education, pre-med, and psychology. Prerequisites: PSY101 with a grade of 'C' or better or permission of the instructor.

PSY250
Social Psychology
3 credits 3 periods lecture
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.

PSY266
Abnormal Psychology
3 credits 3 periods lecture
Distinguishes between normal behavior and psychological disorders. Subjects may include stress disorders, problems with anxiety and depression, unusual and abnormal sexual behavior, schizophrenia and addictive behaviors. Causes and treatments of psychological problems and disorders are discussed. Prerequisites: PSY101 with a grade of "C" or better, or permission of instructor.

PSY277
Psychology of Human Sexuality
3 credits 3 periods lecture
Survey of psychological aspects of human sexual behavior. Emphasis placed on integration of the cognitive, emotional, and behavioral factors in sexual functioning. Prerequisites: PSY101 with a grade of "C" or better, or permission of instructor. Students must be 18 years or older.

PSY290AB
Research Methods
4 credits 6 periods lecture & lab
Planning, execution, analysis, and written reporting of psychological research. Surveys the literature, procedures, and instruments in representative areas of psychological research. Prerequisites: ENG101, ENG107 or equivalent. Prerequisites or Corequisites: PSY230 (or equivalent) with a grade of "C" or better, or permission of instructor.

PSY298
Special Projects
1-3 credits 1-3 periods lab
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment 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.

RDG – Reading

In college, most courses involve reading and studying. Thus it is critical for students to know and apply appropriate skills that will enhance academic progress and success. The Reading Department offers a wide variety of reading/study-based courses at different levels. These courses have been designed to develop and improve students’ skills so that they can attain personal and/or academic goals. Please Note: For CRE (Critical Reading) courses, see page 247.

RDG008
Phonics
3 credits 3 periods lecture
Designed for students who are learning English as a second language. Includes the study of the speech sounds used in English as represented by the written symbols of the alphabet; recognition of spelling patterns and resulting pronunciation; and diacritical markings. Prerequisites: Reading placement score (ASSET) or permission of instructor.

RDG010
Reading English as a Second Language I
3 credits 3 periods lecture
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.

RDG014
Advanced Vocabulary for ESL Speakers (Non-Native Speakers)
3 credits 3 periods lecture
NOTE: Course changes not available at time of printing. Consult with Academic Advisement. Designed to expand and improve reading vocabulary skills. Emphasis on understanding advanced vocabulary in both context and isolation through practice and review. Vocabulary building strategies which will aid in ongoing study of words. Emphasis on both learning and using more advanced vocabulary effectively. Prerequisites: RDG010 with grade of "C" or better, or permission of instructor.

RDG020
Reading English as a Second Language II
3 credits 3 periods lecture
Designed for students who are learning English as a second language. Includes continued development of vocabulary and reading comprehension skills. Prerequisites: Appropriate ESL placement test score or grade of "C" or better in RDG010 or permission of instructor.

RDG030
Reading English as a Second Language III
3 credits 3 periods lecture
Designed for students who are learning English as a second language. Includes instruction for more advanced vocabulary and reading comprehension skills. Prerequisites: Appropriate ESL placement test score or grade of "C" or better in RDG020 or permission of instructor.
RDG040
Reading English as a Second Language IV
3 credits 3 periods lecture
Developed for students of English as a second language. Includes development of advanced vocabulary, comprehension skills, and culture awareness. Prerequisites: Appropriate ESL placement test score or grade of "C" or better in RDG030 or permission of instructor.

RDG081
Reading Improvement
3 credits 3 periods lecture
Designed to improve basic reading skills. Includes word recognition, prediction of contents of reading selections, and development of basic vocabulary. Emphasis on identifying main ideas and related details. Reviews following directions and the understanding of graphic materials. Prerequisites: Placement test score or permission of instructor.

RDG091
College Reading Skills I
3 credits 3 periods lecture
Designed to improve basic reading and study skills, vocabulary and comprehension skills. Recommended to all students whose placement test scores indicate a need for reading instruction. Prerequisites: Reading placement test score (ASSET) or grade of “C” or better in RDG081, or permission of instructor.

RDG100
College Study Skills
3 credits 3 periods lecture
Analysis of learning styles and development of individual learning strategies. Introduction of library research techniques. Emphasis on learning and study techniques applicable to any college course. Prerequisites: Grade of “C” or better in RDG091 or permission of instructor.

REA - Real Estate

REA201
Real Estate Principles I and II
6 credits 6 periods lecture
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.

REA201AA
Real Estate Exam Preparation
1 credit 1 period lecture
Complete review of real estate principles in preparation for taking Arizona’s real estate license exam. Prerequisites: [Grade of “C” or better and 90 hours of school-verified attendance in (REA179 and REA180) or REA201] or permission of department. Course Note: Students must complete final exam at 70% in order for the college to issue their prelicensure certificate.

REC – Recreation

REC120
Leisure and the Quality of Life
3 credits 3 periods lecture
Overview of the historical, psychological, social, and cultural aspects of play, leisure, and recreation and their role in contemporary society. Nature of play and leisure behavior in human development within different cultures and the contribution play, recreation, and leisure make to the quality of life for individuals in today’s society. Prerequisites: None.

REC/GCO131
Horticulture
2 credits 2 periods lecture
Identification and classification of common plants in the Southwest. Study of basic plant structure, growth processes, reproduction and environmental influences on plant growth processes. Prerequisites: None.

REC/GCO132
Landscape Management
2 credits 3 periods lecture + lab
Identification of plants commonly used in Arizona landscaping. Includes trees, shrubs, vines, flowers, and ground covers. Techniques for planting, watering, and fertilizing recreational grounds. Pest control planning. Prerequisites: None.

REC/GCO133
Soil Management
2 credits 3 periods lecture + lab
Origin, formation, physical and chemical properties of soils. Includes soil testing, fertilization, and modification of techniques to manage soils on recreational grounds. Prerequisites: None.

REC/GCO134
Irrigation and Water Management
2 credits 3 periods lecture + lab
Irrigation and water management systems used on recreational grounds. Installation and repairs of sprinklers, valves, piping, electrical systems, and pumps. Prerequisites: None.

REC/GCO135
Fertilizers
2 credits 3 periods lecture + lab
Fertilizer plans used on recreational grounds. Focuses on the equipment used and results of different types of fertilizers. Emphasis on safety and environmental concerns. Prerequisites: None.
Integrated Pest Control
2 credits 3 periods lecture + lab

Turfgrass Management
2 credits 3 periods lecture + lab
Identification of turfgrasses used in the Southwest. Establishment and maintenance of turfgrasses on recreational grounds. Prerequisites: None.

Clubfitting/Repair
1 credit 2 periods lecture + lab
Basic principles of golf club design. Includes personal fitting of golf clubs to customer's needs as well as repair. Prerequisites: None.

Pro Shop Merchandising
1 credit 1 period lecture
Focus on principles of merchandising related to a pro shop. Includes components of display and visual presentation of merchandise. Prerequisites: None.

Sharpening & Grinding Equipment
1 credit 2 periods lecture + lab
Principles and practices of sharpening and grinding of recreational grounds equipment. Prerequisites: None.

Equipment Mechanics and Shop Management
3 credits 4 periods lecture + lab
Principles of mechanics as applied to turfgrass and hand-held equipment. Maintenance, repair, operation, and shop management of equipment. Development of equipment inventory and buyers' guide files. Application of federal and maintenance and repair shop safety regulations. Prerequisites: None.

Equipment Maintenance and Repair
3 credits 4 periods lecture + lab
Additional principles of mechanics as applied to turfgrass and hand-held equipment. Includes equipment components such as engines, motors, hydraulics, and fuel lubricating systems. Operation, maintenance, and repair of tractors, mowers, and motorized carts. Stocking and maintaining a parts and supply inventory system. Application of federal and maintenance and repair shop safety regulations. Prerequisites: REC/GCO145.

Outdoor Adventure Skills Field Experience
1 credit 2 periods lab
Practical application of outdoor skills including camping, equipment selection and use, cooking, fire building, camp programs, backpacking, and safety. Prerequisites: None.

Leisure Delivery Systems
3 credits 3 periods lecture
Systematic study of Delivery of Leisure Services in public, commercial, and independent sectors; particular emphasis placed on the urban setting. Prerequisites: None.

Pro Shop Management Practicum
1 credit 4.75 periods lab
Application of pro shop management knowledge and skills at a practicum site. Prerequisites: Permission of instructor.

Turf and Irrigation Practicum
1 credit 4.75 periods lab
Application of turf and irrigation technology, knowledge, and skills at a practicum site. Prerequisites: Permission of instructor.

Horticulture Practicum
1 credit 4.75 periods lab
Application of horticultural knowledge and skills at a practicum site. Prerequisites: Permission of instructor.

Pesticide Practicum
1 credit 4.75 periods lab
Application of pesticide knowledge and skills at a practicum site. Prerequisites: Permission of instructor.

Recreation Leadership
3 credits 3 periods lecture
An examination of roles and methods of leadership in leisure services settings. Overview of theories and models of leadership, group dynamics, participant motivation, communication, and face-to-face leadership. Exploration of leadership contexts, including coaching and officiating sports, leading community groups and volunteers, working with persons in various life stages and with varying abilities, and leading different recreation activity areas. Prerequisites: None.

Recreational Resources & Facilities Management Internship
3 credits 15 periods lab
Work experience in a recreational resources and facilities setting. Fifteen (15) hours of work weekly. Supervision and evaluation by internship coordinator. May be repeated for a total of six (6) credits. Prerequisites: Permission of department/division.

American Indian Religions
3 credits 3 periods lecture
Tribal traditions of the peoples native to North America, and pan-Indian religions in the twentieth century. Prerequisites: ENG101 or ENG107 or equivalent.

Religion and the Modern World
3 credits 3 periods lecture
Introduction to the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world. Prerequisites: ENG101, or ENG107, or equivalent.
SBS200 Society and Business
3 credits 3 periods lecture
The study 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 business responses. Prerequisites: None.

SLG – Sign Language

Also see Interpreter Preparation, IPP on page 291.

SLG090AA Speedy Sign Language I
1 credit 1 period lecture

SLG090AB Speedy Sign Language II
1 credit 1 period lecture
Use American Sign Language (A.S.L.) to converse about feelings, family members, other people, clothing, events according to proper tense, and to count to one hundred. Prerequisites: SLG090AA.

SLG101 American Sign Language I
4 credits 4 periods lecture
SLG102  American Sign Language II  
4 credits 4 periods lecture  
Continued development of knowledge and language skills for communicating with deaf people who sign. Includes numbers, fingerspelling, and culture. Emphasis on enhancement of receptive sign skills and continued development of expressive sign skills. Application of rudimentary, syntactical, and grammatical structure stressed with continued development of sign vocabulary. Prerequisites: SLG101, with a grade of “C” or better, or permission of department/division.

SLG103  Introduction to Deafness  
1 credit 1 period lecture  
History and development of American Sign Language (A.S.L.) and English codes. Overview of education for Deaf and Hard of Hearing children. Legal rights and common adaptive devices used by Deaf and Hard of Hearing individuals. Prerequisites: None.

SLG110  Fingerspelling I  
2 credits 2 periods lecture  
Introduction to basic fingerspelling techniques. Concentration on receptive and expressive skills including manual alphabet production and numbers. Focus on methods, theory, and applications. Prerequisites: SLG101, or permission of department/division.

SLG120  Fingerspelling II  
2 credits 2 periods lecture  
Continued skill development including speed, dexterity, clarity, and loan signs. Advanced use of numbers, prefixes, suffixes, and polysyllabic words. Prerequisites: SLG102, SLG110 with a grade of “C” or better, or permission of department/division.

SLG200  Issues and Aspects of Deafness  
3 credits 3 periods lecture  
Implications of laws pertaining to educational choices and rights of deaf and hearing impaired individuals. Local, state, and national organizations, activities, and agencies affecting the deaf community. Prerequisites: SLG102, SLG103 with a “C” or better, or permission of department/division.

SLG201  American Sign Language III  
4 credits 4 periods lecture  
Linguistics of American Sign Language (A.S.L.) including non-manual behaviors and signing English idioms with conceptual accuracy. Emphasis on practical application of A.S.L. skills, expanded vocabulary, and cross-cultural communication. Prerequisites: SLG102, with a grade of “C” or better, or permission of department/division. Suggested but not required: ENG101 or ENG107 and (CRE101 or CRE111 or exemption by score on the reading placement test (ASSET)).

SLG202  American Sign Language IV  
4 credits 4 periods lecture  
Advanced American Sign Language skills including continued vocabulary. Emphasis on conversational techniques in a cross-cultural framework. Continued work on conceptual accurate signing of English idioms and words with multiple meanings. Prerequisites: SLG103 and SLG201 with a grade of “C” or better, or permission of department/division. Suggested but not required: ENG101, SLG200, and CRE101 or CRE111 or exemption by score on the reading placement test (ASSET).

SLG203  American Sign Language V  
4 credits 4 periods lecture  
Advanced study of vocabulary, classifiers, use of space, and grammatical features of American Sign Language (ASL). Includes evaluation of changes that occur in ASL as a living language. Advanced use of ASL in demonstrations, reports, and presentations. Prerequisites: SLG202, with a grade of “C” or better.

SLG204  Comparative Linguistics: ASL/English  
3 credits 3 periods lecture  
A variety of topics about linguistics of American Sign Language and English including phonology, morphology, lexicon, syntax, discourse, and language acquisition. Aspects of using sign language and how visual languages differ and are similar to spoken language. Prerequisites: SLG202. Corequisites: SLG203.

SLG205  Introduction to Interpreting  
3 credits 3 periods lecture  
Theories of role, function, responsibilities, and communication strategies of the American Sign Language (ASL)/English interpreter. Covers application and implementation of the National Registry of Interpreters for the Deaf (R.I.D.) Code of Ethics. Additional topics addressed include interpreters functioning as advocates, moral systems vs. ethical systems, standard business practices, and perceptions of consumers. Prerequisites: SLG201 with a grade of “C” or better, or permission of department/division.

SLG212  Deaf Culture  
3 credits 3 periods lecture  
(Spring only)  
Linguistic, social, educational, and political issues in deaf culture. Values and group identity issues as related to heritage and literature. Special emphasis on the cultural and philosophical attitudes shared with other minority groups. Prerequisites: SLG202 or permission of department/division.

SLG215  Sign to Voice  
3 credits 3 periods lecture  
Interpreting sign language into spoken English. Includes expanding spoken vocabulary and improving technical skills. Additional hours outside regular classroom schedule required. Prerequisites: SLG206 with a grade of “B” or better, or permission of department/division.

SLG242  Educational Interpreting  
3 credits 3 periods lecture  
(Evening only)  
Direct application of interpreting in the classroom. Experience with the interpreting process and decision making through role-playing. Presentations and use of initialized signs with conceptual accuracy. Emphasis on self monitoring and feedback skills. Includes required student observations of educational interpreting outside of class. Prerequisites: SLG200 and SLG201 with a grade of “C” or better, or permission of department/division.
## SOC – Sociology

### SOC101
**Introduction to Sociology**
3 credits 3 periods lecture
Fundamental concepts of social organization, culture, socialization, social institutions and social change. **Prerequisites:** None.

### SOC140
**Racial & Ethnic Minorities**
3 credits 3 periods lecture
Contemporary racial and ethnic intergroup relations emphasizing cultural origins, developments, and problems of minority groups in the United States. **Prerequisites:** None.

### SOC157
**Sociology of Marriage & Family**
3 credits 3 periods lecture
The study of courtship, marriage, and family patterns, their historical development, their adaptation to a changing culture, and their impact on individuals. **Prerequisites:** None.

### SOC212
**Gender and Society**
3 credits 3 periods lecture
A study of the way culture shapes and defines the positions and roles of both men and women in society. Major emphasis on social conditions which may lead to a broadening of gender roles and a reduction of gender role stereotypes and the implications of these changes. Open to both men and women. **Prerequisites:** None.

### SOC245
**Social Deviance**
3 credits 3 periods lecture
A sociological analysis of social deviance including a review of theories, individual and social implications of deviant labeling, and relevant aspects of social control. **Prerequisites:** SOC101.

### SOC251
**Social Problems**
3 credits 3 periods lecture
A sociological exploration of selected social problems. Emphasis on current concerns. **Prerequisites:** SOC101.

## SPA – Spanish

### SPA085AA
**Speedy Spanish I**
1 credit 1 period lecture
Basic vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills. **Prerequisites:** None.

### SPA085AB
**Speedy Spanish II**
1 credit 1 period lecture
Intermediate development of vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills. **Prerequisites:** SPA085AA.

### SPA085AC
**Speedy Spanish III**
1 credit 1 period lecture
Advanced development of vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills. **Prerequisites:** SPA085AB.

### SPA086
**Review of Speedy Spanish**
0.5 credit 0.5 period lecture
Review of very basic vocabulary and grammar to help develop conversational skills in Spanish. Emphasis on speaking skills. **Prerequisites:** SPA085AC, or departmental approval.

### SPA101
**Elementary Spanish I**
4 credits 4 periods lecture
Basic grammar, pronunciation and vocabulary of the Spanish language. Includes the study of Spanish-speaking cultures. Practice of listening, speaking, reading, and writing skills. **Prerequisites:** None.

### SPA102
**Elementary Spanish II**
4 credits 4 periods lecture
Continued study of grammar and vocabulary of the Spanish language and study of Spanish-speaking cultures. Emphasis on speaking, reading, and writing skills. **Prerequisites:** SPA101 or departmental approval.

### SPA103
**Elementary Spanish for Spanish Speakers I**
4 credits 4 periods lecture
Review of basic Spanish grammar and pronunciation. Emphasis on reading and writing skills in Spanish. For native speakers needing review of essential language skills. **Prerequisites:** Spanish-speaking or departmental approval.

### SPA111
**Fundamentals of Spanish**
4 credits 4 periods lecture
Accelerated study of elementary Spanish for students with previous Spanish coursework. Includes basic Spanish grammar, pronunciation, vocabulary and the study of the Spanish-speaking cultures. Emphasis on speaking, listening, reading, and writing skills. **Prerequisites:** SPA101, or SPA115, or two years of high school Spanish.

### SPA115
**Beginning Spanish Conversation I**
3 credits 3 periods lecture
Conversational Spanish. Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in Spanish. Designed for students seeking speaking and listening abilities with little emphasis on grammar. **Prerequisites:** None.

### SPA116
**Beginning Spanish Conversation II**
3 credits 3 periods lecture
Continued development of speaking and listening skills for effective communication in Spanish. **Prerequisites:** SPA115 or departmental approval.

### SPA117
**Health Care Spanish**
3 credits 3 periods lecture
Basic conversational Spanish for health care workers or students. Emphasis on basic sentence structure, pronunciation and vocabulary used in health care settings. **Prerequisites:** None.

### SPA117AA
**Medical Spanish I**
1 credit 1 period lecture
Basic medical terminology in Spanish for health care personnel. Emphasis on pronunciation and vocabulary needed in health care setting. **Prerequisites:** None.

### SPA117AB
**Medical Spanish II**
1 credit 1 period lecture
Basic Spanish communication for health care personnel. Emphasis on pronunciation and vocabulary needed in health care settings. **Prerequisites:** SPA117AA or permission of instructor.
SPA195
Basic Spanish Study Tour
1 credit 1 period lecture
One-week tour designed to develop tourist vocabulary and survival skills in a Spanish-speaking country. Also includes cultural tours to museums and architectural sites. Prerequisites: None.

SPA201
Intermediate Spanish I
4 credits 4 periods lecture
Continued study of essential Spanish grammar and Spanish-speaking cultures. Continued practice and development of reading, writing, and speaking skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish. Prerequisites: SPA102, two years of high school Spanish or departmental approval.

SPA202
Intermediate Spanish II
4 credits 4 periods lecture
Review of grammar, continued development of Spanish language skills with continued study of the Spanish-speaking cultures. Prerequisites: SPA201 or equivalent or departmental approval.

SPA203
Spanish for Spanish-Speaking Students I
4 credits 4 periods lecture
Designed for Spanish-speaking students. Emphasis on written composition, grammar review, punctuation and spelling, literature and conversation. May be taken in lieu of SPA201. Prerequisites: Permission of instructor or Department Chair.

SPA204
Spanish for Spanish-Speaking Students II
4 credits 4 periods lecture
Designed for Spanish-speaking students. Advanced study of Spanish grammar, composition, literature, and conversation. May be taken in lieu of SPA202. Prerequisites: SPA203, or SPA201, or permission of instructor or Department Chair.

SPA217
Spanish for Business Communication
4 credits 4 periods lecture
General business terminology, situations and correspondence in Spanish, including sections on cultural differences that can affect business transactions. Various specific business situations in Latin America and Spain contrasted with similar situations in the USA. Prerequisites: GBS151 and (SPA201 or permission of instructor).

SPA225
Intermediate Spanish Conversation I
3 credits 3 periods lecture
Continued development of skills in conversational Spanish. A review of the major grammatical and pronunciation problems. Prerequisites: SPA116, or SPA102 or departmental approval.

SPA226
Intermediate Spanish Conversation II
3 credits 3 periods lecture
Continued development of skills in conversational Spanish. Further development of skills in conversational Spanish. A review of the major grammatical and pronunciation problems. Prerequisites: SPA225, two years Spanish or the equivalent or departmental approval.

SPA227
Teacher Bilingual Certification Exam Preparation
1 credit 1 period lecture
Practice Spanish for the State of Arizona Spanish Proficiency Exam for Bilingual Certified Teachers. Prerequisites: SPA226, or equivalent or departmental approval.

SPA235
Advanced Spanish Conversation I
3 credits 3 periods lecture
Continued development of skills in conversational fluency. Class conducted completely in Spanish. Prerequisites: SPA226 or equivalent or departmental approval.

SPA236
Advanced Spanish Conversation II
3 credits 3 periods lecture
Further development of skills in conversational fluency. Grammar presented only to clarify student errors. Prerequisites: SPA235, or equivalent, or departmental approval.

SPA237
Spanish Legal Terminology
3 credits 3 periods lecture
Emphasis on legal terminology, including specific vocabulary and linguistic structures. Conducted entirely in Spanish. Prerequisites: SPA202, or equivalent, or permission of instructor.

SPA240
Spanish for City Courts
3 credits 3 periods lecture
Emphasis on English to Spanish and from Spanish to English interpreting for misdemeanor cases in City Courts. Familiarizes students with the City Court system and standards for interpreting. Prerequisites: SPA202, or SPA204, or permission of instructor.

SPA265
Advanced Spanish I
3 credits 3 periods lecture
Introduction and study of Spanish and Spanish-American literature. Selected readings from most Spanish-speaking countries. All discussions, oral reports, and written assignments are in Spanish. Prerequisites: SPA202 or departmental approval.

SPA266
Advanced Spanish II
3 credits 3 periods lecture
Further study of Spanish and Spanish-American literature. Reading selections from most Spanish-speaking countries. All oral reports, discussions, and written reports in Spanish. Graduated level of difficulty from the literature studies in SPA265. Prerequisites: SPA265 or departmental approval.

SPA270
Volunteerism for Spanish: A Service Learning Experience
1 credit 1 period lab
Service-learning field experience within private/public agencies, and citizen volunteer groups. May be repeated for a total of four (4) SPA282 credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of instructor.
SPH – Spanish Humanities

SPH151
Latin American Literature in Translation
3 credits 3 periods lecture
Continuation of SPH150. Other representative works of Latin American literature from the modernist movement to the present covered in English translation. Knowledge of Spanish not required. Prerequisites: None.

SPH245
Hispanic Heritage in the Southwest
3 credits 3 periods lecture
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.

STO – Storytelling

STO292
The Art of Storytelling
3 credits 3 periods lecture
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.

SWU – Social Work

SWU102
Introduction to Social Work
3 credits 3 periods lecture
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.

SWU170
Disaster Response Planning for Organizations
3 credits 3 periods lecture
Preparedness planning for major community disasters. Addresses preparedness, response, and recovery. Creation of disaster management plan. Prerequisites: None.

SWU275AA
Case Report Writing I
1 credit 1 period lecture
Documentation skills for human service helpers. Includes privacy and legal issues. Prerequisites: None.

SWU282AA-AC
Volunteerism for Social Work: A Service Learning Experience
1-3 credits & 1-3 periods lab
Service-learning field experience within private/public agencies, and citizen volunteer groups. May be repeated for a total of six (6) SWU282 credit hours; may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. Prerequisites: Permission of instructor.

SWU291
Social Service Delivery Systems
3 credits 3 periods lecture
Purposes, structures, and delivery systems of human service agencies. Includes 40 hours of volunteer experience in local human service agencies. Prerequisites or Corequisites: SWU102, or SWU171, or permission of the department.

SWU292
Effective Helping in a Diverse World
3 credits 3 periods lecture
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.

TD P – Terrorism & Disaster Preparedness

TDP101
Weapons of Mass Destruction (WMD) Terrorism Awareness
0.5 credit 0.5 period lecture
Designed to give participants a basic awareness of terrorist threats and vulnerabilities within the community. Weapons of Mass Destruction (WMD) hazards, behavioral responses to these incidents, and crisis management within a community responding to a terrorist attack discussed. Overview of WMD radiological, biological, and chemical agents in context to a terrorist assault within the community. Includes methods of delivery and the devices that terrorists use to disseminate WMD agents as well as community response strategies and risk management plans for the protection of the community. Prerequisites: None.

TDP102
Basic Concepts for Weapons of Mass Destruction (WMD) Incidents
1 credit 1 period lecture
Designed to give participants a basic awareness of the knowledge and skills necessary to plan and manage a Weapons of Mass Destruction (WMD) incident through the roles and responsibilities of the incident command system (ICS), using the eight functions of command. Use of a multidiscipline approach to ICS, integrating the local unified command system to approach and manage a WMD incident. Includes community response strategies and risk management plans for the protection of the community. Prerequisites: None.

TDP201
Weapons of Mass Destruction (WMD) Incident Management/Unified Command
1 credit 2 periods lecture + lab
Training for emergency responders in skills necessary to manage a WMD-terrorism incident by adapting the existing Incident Command System (ICS) to the unique challenges posed by the integration of local, state, and federal agencies and departments into a unified command structure. Prerequisites: Permission of instructor.

For additional information on PC program competencies, visit:
http://www.dist.maricopa.edu/academic/curric/progpc.php

For additional information on MCCCD course competencies, visit:
http://www.dist.maricopa.edu/academic/curric/acs.php
TDP282AA-AC
Volunteerism for Terrorism and Disaster Preparedness
1-3 credits 1-3 periods lecture + lab
Service-learning field experience within private/public agencies and citizen volunteer groups. Prerequisites: Permission of instructor. Course Notes: May be repeated for a total of six (6) TDP282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Offered as credit (P) or no credit (Z) basis. Standard grading available according to procedures outlined in catalog.

**TEC – Textiles & Clothing**

TEC105
Clothing Selection
3 credits 3 periods lecture
Psychological, aesthetic, and economic factors applied to the selection of clothing in relation to personality and figure type. Prerequisites: None.

TEC106
History of Fashion
3 credits 3 periods lecture
(Not offered every semester)
Consideration of historic factors influencing fashion and fashion change with special emphasis on historic costume. Prerequisites: None.

TEC110
Basic Sewing Skills
3 credits 4 periods lecture + lab
Basic clothing construction techniques. Use of commercial patterns and sewing machine in the construction of basic garments. Prerequisites: None.

TEC111
Clothing Construction
3 credits 5 periods lecture + lab
Construction of garments applying basic construction principles and techniques using patterns suitable for the individuals and their capabilities. Prerequisites: None. Course Note: If student has no previous sewing experience, TEC110 Basic Sewing Skills should be taken prior to and not during this course. May be repeated for a total of 12 credit hours with permission of instructor.

TEC113
Textile: Dyeing
1 credit 1.5 periods lecture + lab
(Not offered every semester)
Demonstrations and projects emphasizing skills and techniques in creating decorative textiles for the home and apparel; tie dye and batik. Prerequisites: None.

TEC114
Textile: Block Printing/Silk Screening
1 credit 2 periods lecture + lab
Skills and techniques in creating decorative textiles for the home and apparel; block printing and silk screening. Prerequisites: None.

TEC115
Textile: Hand Painting
1 credit 1.5 periods lecture + lab
(Not offered every semester)
Materials and techniques used to hand paint designs on textiles. Includes color theory and design development. Prerequisites: None. Course Notes: Course may be repeated for a total of three (3) credits.

TEC116
Textile: Stitchery and Embellishment
1 credit 1.5 periods lecture + lab
Materials and techniques used for stitchery and embellishment on textiles. Includes color schemes and design development. Prerequisites: None. Course Note: May be repeated for a total of three (3) credits.

TEC120
Intermediate Clothing Construction
2 credits 4 periods lecture + lab
Application of intermediate clothing and fitting techniques. Emphasis on improving basic construction skills. Prerequisites: TEC111 or permission of instructor. Course Note: May be repeated for a total of 8 credit hours with permission of instructor.

TEC124
Advanced Clothing Construction
3 credits 5 periods lecture + lab
Advanced garment construction techniques, pattern alteration and fit and techniques used on specialty fabrics. Prerequisites: TEC111 or permission of instructor. Course Note: May be repeated for a total of 12 credit hours with permission of instructor.

TEC125
Fashion Design
3 credits 3 periods lecture
(Not offered every semester)
Practical techniques of fashion sketching, pattern drafting, and draping. Design apparel. Prerequisites: None. TEC106 and TEC111 suggested but not required.

TEC126
Sewing for the Home
3 credits 3 periods lecture
Emphasizes techniques used in producing household textile goods such as slip covers, bedspreads, window treatments, linens, accessories, pillows, etc. Experience using a sewing machine assumed. May be repeated for a total of 9 credit hours with instructor permission. Prerequisites: None.

TEC127
Computer-Assisted Fashion Design
2 credits 2 periods lecture + lab
(Not offered every semester)
The use of computer hardware and software in the fashion design industry. Create and illustrate fashion designs using computer hardware and software. Color and design principles applied in creating an apparel line and developing a portfolio. Prerequisites: TEC125. Course Note: May be repeated for a total of six (6) credits.

TEC129
Sewing with a Serger
2 credits 2 periods lecture + lab
Operation of a home serger. Use in constructing, finishing, and decorating garments and home decorations. Home serger required. Prerequisites: None.

TEC134
Fashion Illustration I
3 credits 5 periods lecture + lab
Proportions and techniques used in drawing fashion figures and clothing. Introduction of media and illustrative styles for portfolio design, trade sketches, and fashion advertisements. Prerequisites: None.

TEC135
Fashion Illustration II
3 credits 5 periods lecture + lab
Advanced study of proportion and techniques used in drawing fashion figures and flats. Continued study of garments, fabric textures and patterns. Development of skills in presentation drawing and commencing fashion design portfolio illustrations. Prerequisites: TEC134, or permission of instructor.
Course Descriptions

TEC111 or permission of instructor.

May be repeated for a total of twelve (12) credits.

May be repeated for a total of three (3) credits.

TEC236

Portfolio Development
1 credit 1.5 periods lab
(Not offered every semester)
Design, produce, and present a professional portfolio. Includes material selection and techniques, customer focus, contents and organization, presentation formats, flat sketching techniques, presentation boards, and writing a resume and cover letter for potential employers. Prerequisites: TEC127, TEC135, or permission of instructor.

TEC240

Fashion Design Internship
2 credits 10 periods lab
Work experience in fashion design business or industry. Ten hours of work weekly. Supervision and evaluation by an internship coordinator. Prerequisites: TEC110 or TEC111. Course Note: May be repeated for a total of three (3) credits.

Departmental approval.

TEC226

Draping for Fashion Design
3 credits 5 periods lecture + lab
(Not offered every semester)
Manipulation of fabrics on a dress form and/or live figure to create designs and patterns. Use of a variety of woven/knit fabrics and an exploration of the many possibilities of draping to allow for creative and accurate expression of ideas. Prerequisites: (TEC110 or TEC111) or permission of instructor.

Course Note: May be repeated for a total of twelve (12) credits.

Pattern Grading
3 credits 5 periods lecture + lab
Grading patterns to change sizes. Includes grading terminology, grading methods, types of grade, uneven grade, figure types, grading charts, blending, and grading basic and intermediate designs. Prerequisites: TEC111, or permission of instructor.

Course Note: Departmental approval.

TEC270

Design Studio
1 credit 1 period lab
Design of an original garment for a line/collection. Includes sketching design, developing pattern design, selecting fabrics for design, and construction of design. Prerequisites: TEC225 or TEC226. Course Note: Course may be repeated for a total of 4 credit hours with permission of instructor.

TEC/MKT271AC

Fashion Design Internship
3 credits 15 periods lab
Work experience in fashion design business or industry. Fifteen hours of work weekly. Supervision and evaluation by an internship coordinator. Prerequisites: TEC110 or TEC111. Course Note: Departmental approval.

Departmental approval.
THE111
Introduction to Theatre
3 credits 3 periods lecture
A survey of theatre, including basic elements and principles of production, styles, and/or historical perspectives of theatre, dramatic literature, and criticism. Prerequisites: None.

THP112 or individualized learning to be combined as aspects of independent study and available for student use. Allows the best type facilities and equipment are made expertise and guidance. Professional- and style.

perspective of the playwright’s structure film as an art form.

Prerequisites:

THP115
Theatre Makeup
3 credits 4 periods lecture + lab
Purposes, materials, and techniques of theatrical makeup. Prerequisites: None.

THP112
Acting I
3 credits 4 periods lecture + lab
Fundamental techniques and terminology of acting through physical and vocal expression, improvisation, and monologue and scene work. Emphasis on characterization. Prerequisites: None.

THP115
Theatre Makeup
3 credits 4 periods lecture + lab
Purposes, materials, and techniques of theatrical makeup. Prerequisites: None.

THP201AB
Theatre Production II
2 credits 4 periods lab
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.

THP210
Acting: TV/Film
3 credits 4 periods lecture + lab
Special technical aspects of acting before a camera. Prerequisites: THP112 or permission of instructor.

THP212
Acting II
3 credits 4 periods lecture + lab
Fundamental techniques of acting through script analysis, rehearsal, and performance. Prerequisites: THP112 or departmental approval.

THP213
Introduction to Technical Theatre
3 credits 5 periods lecture + lab
Procedures of technical theatre production and demonstration. Topics include design and construction of scenery; lighting and properties. Prerequisites: None.

THP215
Advanced Makeup Techniques
3 credits 4 periods lecture + lab
Advanced character analysis and makeup design. Technical application of makeup. Prerequisites: THP115.

THP216
Beginning Stage Lighting
3 credits 4 periods lecture + lab
Basic theories of stage lighting for all production types. Emphasis on technical/theoretical facts, artistic/design concept development, and “teamwork” structure of theatre. Examines stage lighting optics, instrument selection and application, color theory, circuiting and control systems, and basic design. Prerequisites: THP213 or permission of instructor.

THE/HUM205
Introduction to Cinema
3 credits 3 periods lecture
Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements. Prerequisites: None.

THE/HUM210
Contemporary Cinema
3 credits 3 periods lecture
A study of contemporary films, directors and critics with emphasis on evaluating film as an art form. Prerequisites: None.

THE220
Modern Drama
3 credits 3 periods lecture
(Spring only)
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 ENGL7 or equivalent.

THE274AC
Theatre Study Tour
3 credits 15 periods lab
A tour that focuses on theatre production outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about theatre production. Prerequisites: Department approval.

THE298AA-AC
Special Projects
1-3 credits 1-3 periods lab
Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment 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.
WED/PED130
Strength Fitness - Physiological Principles & Training Techniques
3 credits 3 periods lecture + lab
Principles and techniques of strength training including strength physiology, performance factors, training recommendations, exercise techniques, and program design and management. Prerequisites: None.

WED151
Introduction to Alternative Medicine
3 credits 3 periods lecture
Definition of health; exploration of mind-body-spirit connection in health; various therapeutic modalities; identification of strengths and limitations of alternative therapies. Also includes development of ability to critically review written material in the alternative therapy area. Prerequisites: None.

WED154
Creativity and Wellness
2 credits 2 periods lecture
Characteristics of creativity and right brain activity, factors that encourage and stifle creativity; and exercises that foster creativity. Prerequisites: None.

WED156
Humor and Play
1 credit 1 period lecture
Physiological, psychological, emotional, and intellectual effects of humor and play; suggestions for planning periods of play and incorporating it into one’s life. Prerequisites: None.

WED162
Meditation and Wellness
1 credit 1 period lecture
Physiology of meditation and its effects on physical and mental health; scholastic abilities and interpersonal relationships; differentiation between meditation and other relaxation techniques. Prerequisites: None.

WED165
Overview of Massage Therapy
2 credits 2 periods lecture
History of massage; overview of bodywork systems; benefits and indications of massage; legal requirements for practice in Arizona. Prerequisites: None.

WED170
Principles of Homeopathy
1 credit 1 period lecture
Origins of homeopathy; key concepts; perceptions of disease; schools of homeopathy; scientific studies; preparation of remedies; case taking. Prerequisites: None.

WED172
Overview of Herbal Remedies
1 credit 1 period lecture
History and evolution of herbs for healing applications. Preparation, usage, and effects of certain herbs used for healing purposes. Basic literature review skills in the area of herbal medicine. Prerequisites: None.

WED176
Flower Essences
1 credit 1 period lecture
Healing properties of Bach flower remedies; Bach’s development of remedies and his philosophy of healing; use and preparation of a variety of flower essences. Prerequisites: None.

WED204
Managing a Massage Practice
2 credits 2 periods lecture
Application of practical methods of researching and writing a business plan for massage therapy. Prerequisites: None. Corequisites: WED250, or permission of instructor.

WED210
Sports Massage
2 credits 3 periods lecture + lab
Purpose, benefits, and contraindications of sports massage; principles of sports physiology; massage techniques, applications, and procedures; treatment of injuries. Prerequisites: WED165 and WED230, or permission of Program Director.

WED215
Self-Care for Health Care Professionals
2 credits 5 periods lecture + lab
Emphasis on mind-body methods for personal wellness through integration of physical, emotional, social, and spiritual dimensions of being. Development of a personal practice to achieve and sustain a balanced program to support personal health and well being. Prerequisites: None.

WED218
Aromatherapy
1 credit 1 period lecture
Physiology of aromatherapy; methods of use; preparation of oils; uses in sports, beauty care, massage, child care, healthcare, at work, and in the home. Prerequisites: None.

WED230
Therapeutic Massage Practices I
6 credits 9 periods lecture + lab
Principles of professionalism, ethics, and legalities. Includes use of terminology related to massage therapy. Applications, indications, and contraindications of the nine strokes of Swedish massage. Study of the human osseous and muscular structure. Emphasis on normal movement patterns, origins, insertions, and functions of the muscular system. Prerequisites: (BIO160 and WED165), or permission of Program Director.

WED231
Therapeutic Massage Practices II
6 credits 9 periods lecture + lab
Refined application of the nine strokes of Swedish massage and contraindications to avoid. Application of advanced principles and techniques of trigger point therapy, muscle energy technique, stretching, hydrotherapy protocols, hot and cold applications, reflexology, and corporate massage. Study of the human osseous and muscular structure. Emphasis on normal movement patterns and the origin, insertion, and function of the muscular system. Prerequisites: WED230.

WED232
Therapeutic Massage Practices III
6 credits 10 periods lecture + lab
Refinement and integration of technical skills, psychosocial competencies, and role identity. Exploration of techniques to assess and facilitate range of motion and function; purpose, benefits, indications, and contraindications of therapeutic massage for specific neuromusculoskeletal disorders/injury and special populations. Application of massage techniques with therapist’s pre-and post-client evaluations of the client. Adaptation of massage techniques for special populations. Prerequisites: WED231. Corequisite: WED250, or permission of Program Director.

WED250
Clinical Practicum
3 credits 6 periods lab
Application of fundamental massage techniques. Prerequisites: WED231. Corequisites: WED232, and permission of Program Director.
WED262
Acupressure/Shiatsu I
2 credits 3 periods lecture + lab
Overview of the principles of Traditional Chinese Medicine and the Meridian System; history, purpose, benefits, indications, and contraindications of Acupressure/Shiatsu. Therapeutic techniques and applications of Acupressure/Shiatsu. Pre and post evaluations of intervention procedures. **Prerequisites:** WED250, and permission of instructor.

WED264
Acupressure/Shiatsu II
2 credits 3 periods lecture + lab
Therapeutic techniques and applications for Anna massage used to disperse heat and stagnant “Ki”; hands-on techniques to balance Kyo and Jitsu energy; meridian rebalancing stretches and visualizations for release of acute/chronic muscle tension. **Prerequisites:** WED262, or permission of instructor.

WED270
Introduction to Cardiac and Pulmonary Rehabilitation
1 credit 1 period lecture
Overview of field of cardiac and pulmonary rehabilitation. Emphasis on basic principles and related skills for the health care professional. **Prerequisites:** Baccalaureate degree in a health care related profession or permission of instructor.

WED271
Cardiovascular and Pulmonary Physiology
3 credits 3 periods lecture
Encompasses the aspects of cardiovascular anatomy and physiology for healthy individuals and for those patients with cardiovascular or pulmonary disease. **Prerequisites:** Baccalaureate degree in a health care related profession or permission of instructor.

WED272
Principles for Educating the Adult Patient
1 credit 1 period lecture
Basic principles for educating patients in a health care setting. **Prerequisites:** Baccalaureate degree in a health care related profession or permission of instructor.

WED273
Assessment of the Cardiac & Pulmonary Rehabilitation Patient
0.5 credit 1.5 periods lecture + lab
Basic health assessment of the adult client. Emphasis on collecting health histories and performing physical examinations. Includes cultural considerations in health assessment. **Prerequisites:** Baccalaureate degree in a health care related profession or permission of instructor.

WED297AA-AC
Special Topics: Therapeutic Massage
1-3 credits 1-3 periods lecture + lab
Explores a special topic related to therapeutic massage. Topics vary and include concepts relevant to those pursuing careers in therapeutic massage. **Prerequisites:** None.

**WLD – Welding Technology**

WLD101
Welding I
3 credits 6 periods lecture + lab
Principles and techniques of electric arc and oxyacetylene welding and cutting. Provides technical theory and basic skill training in these welding processes. **Prerequisites:** None.

WLD106
Arc Welding
5 credits 8 periods lecture + lab
Electric welding with emphasis on metallic arc welding in out-of-position practice and procedures. **Prerequisites:** None.

WLD150
Welding Blueprint Reading
3 credits 3 periods lecture
Analysis and interpretation of technical drawings common to the metal fabrication and construction trades. Welding blueprint symbols. **Prerequisites:** None.

WLD201
Welding II
3 credits 6 periods lecture + lab
Further study of electric arc and oxyacetylene welding with emphasis on GTAW (helicopter) and GMAW (mig) processes to weld both ferrous and nonferrous metal. **Prerequisites:** WLD101.

WLD206
Advanced Welding – Heliarc and Wire Feed
5 credits 8 periods lecture + lab
Instruction in theory and practice on tungsten inert gas and wire feed welding. Welding procedures on ferrous and nonferrous metals. Set up and operation of all types of machines used in tig and mig welding. **Prerequisites:** WLD106 or departmental permission.

**WST – Women’s Studies**

WST100
Women and Society
3 credits 3 periods lecture
Introduction to critical issues in women’s studies. **Prerequisites:** None.

WST105
Women of Color in America
3 credits 3 periods lecture
Analysis and discussion of critical issues for women of color in America. **Prerequisites:** None.

WST110
Women and Gender: A Feminist Psychology
3 credits 3 periods lecture
A discussion of the psychology of gender and sex from a feminist perspective. **Prerequisites:** None.

WST120
Gender, Class, and Race
3 credits 3 periods lecture
A feminist discussion of gender, class and race as basic and central social categories that determine how we see ourselves and others and how they circumscribe our opportunities and privileges in American society. **Prerequisites:** None.
WST/AIS128
Law and Violence Against Women
3 credits 3 periods lecture
Covers cases and materials on systems of oppression particularly as related to women in our society. Areas covered include battering, sexual harassment, sexual assault, prostitution, and pornography as exemplified in present-day society. Designed to give students the ability to identify problems of violence against women and participate in current societal discourse on various ways to resolve them. Prerequisites: None.

WST160
Women and the Early American Experience
3 credits 3 periods lecture
Introduction to American women’s history, from the colonial period to suffrage in 1920, based on a feminist perspective. Prerequisites: None.

WST161
American Women Since 1920
3 credits 3 periods lecture
Continuation of the history of women in America from 1920 to the present, based on a feminist perspective. Includes discussion of the roles and status of immigrant and ethnic minority women. Prerequisites: None.

WST/HUM209
Women and Films
3 credits 3 periods lecture
Analysis of images of women in films from both historical and contemporary perspectives. Prerequisites: None.

WST/AIS/ENH261
Native Women’s Literature: The Americas
3 credits 3 periods lecture
Explores contemporary native women’s (indigenous to the Americas) literature. Selected literature (oral tradition, poetry, fiction, nonfiction, and drama) focuses on themes relevant to native women. Examines the trends and movements within American Indian and women’s literary history. Prerequisites: ENG101.

WST/ENH285
Contemporary Women Writers
3 credits 3 periods lecture
Explores twentieth century literature (short stories, essays, plays, and poetry) written by women and about women. Focus on themes relevant to women’s lives regardless of age, creed, or ethnic background. Prerequisites: None.

WST/REL290
Women and Religion
3 credits 3 periods lecture
The role of women in several organized religions and/or religious sects, including a study of myth and symbols as they are used to establish, maintain, and enforce sex-roles within specific religions. Prerequisites: None.
Career Services

Are you undecided about your career or college major? Career Services provides career development resources and will assist you in the Assessment, Investigation, and Marketing of your career plans.

Assess your personality, interests, skills, and values:
Career Assessment Tests On-line
Find valuable information about who you are, how you prefer to work and jobs that others like you have found satisfying and rewarding.

- Discover
- Myers-Briggs Type Indicator
- Arizona Career Information System
- Strong Interest Inventory

Investigate your educational and employment opportunities:
Information available to help you Investigate:
Job Descriptions – Labor Market Information – College Majors – Colleges/Universities – Companies – Financial Aid/Scholarships

Marketing
Resources to assist you in Marketing yourself in the world of work:
Resume Writing – Interviewing Techniques – General and On-Line Job Search Strategies

Job Search
Phoenix College is part of the Maricopa Career Network (www.maricopa.edu/careers), an Internet job service that is used by all 10 of the Maricopa County Community Colleges and thousands of local employers. Search for jobs on-line and submit your resume electronically.

Internet access to other local and national job listings.

Other Job Search Services Include:
- On-campus job openings – Federal Work Study positions, and student budget positions
- On-campus employer recruitment
- Workshops on Job Search, Resume Writing, Interviewing, and Employability Skills
- Semi-annual Career/Job Fair (Spring & Fall)
- Faxing of resumes, cover letters, and applications to employers
- Career counseling available by appointment or walk-in basis
- Career Work Experience program
- Virtual Career Center at www.phoenixcollege.edu/careercenter

Hours:
Monday - Thursday: 7:30 a.m. - 7:00 p.m.
Friday: 7:30 a.m. - 4:00 p.m.
Summer Hours vary.

The Career Services Center is located in the northwest corner of the Hannelly Center, in Room HC-126
Residential Faculty & Administration
(First Year of Service to Maricopa Community Colleges District)

ADAMSON, THOMAS (1990) Mathematics
- B.S., Bemidji State University; M.S.T., Illinois Institute of Technology.

ALLEN, JAMES E. (1995) English
- B.A., Goddard College; M.F.A., Vermont College.

AMADOR, FRED L. (2001) Counseling
- B.A., M.C., Arizona State University.

ANDERSON, KRISTIN (1981) Dental Hygiene
- B.S., Marquette University; R.D.H., M.A., Northern Arizona University.

- B.S., M.Ed., Arizona State University.

ARLE, JOHN F. (1993) Biology
- B.S., University of Phoenix.

ARQUETTE, JEANNE (1994) Chemistry
- B.S., M.S., Louisiana State University.

BATTLE, AL (2004) Business
- B.A., M.B.A., University of Phoenix.

BOLTON, CAROL J. (1991) Communication
- B.A., M.A., University of Arkansas, Fayetteville.

BOND, MINYON L. (1984) Biology
- B.S., M.S., Northwestern State University.

BROMLEY, RAYMOND (1991) Social Science
- B.A., M.A., Ph.D., University of California at Los Angeles.

BRYAN, TIMOTHY M. (1990) Mathematics
- B.S., California State University, San Bernardino; M.A., California State University, Long Beach.

BURGESS, GERALD (1999) Theatre

BURSH, EULA RILEY (1980) Mathematics
- B.S., Southern University; M.N.S., Arizona State University; Ed.D., Nova Southeastern University.

CANEZ, OFELIA (2001) Education
- A.A., Mesa Community College; B.A., Arizona State University; M.Ed., Northern Arizona University.

CARNAHAN, DARRELL (1998) Computer Information Systems
- A.A.S., Salt Lake City Community College; B.A., University of Utah; M.S., Arizona State University.

CELOZA, ALBERT (1988) Social Science
- B.A., M.P.A., University of the Philippines; M.A., University of San Francisco; M.A., Ph.D., Claremont Graduate University.

CHAMBERS, KURT (1998) Learning Technologies and Development
- B.S., Brigham Young University; M.S., University of Utah, Provo, Utah.

CHAVEZ, ENRIQUETA (1997) Counseling
- B.A., Arizona State University; M.A., Northern Arizona University.

CHAVEZ, MATILDA D. (2001) Nursing
- B.S.N., Arizona State University; M.S.N., Case Western Reserve University.

- B.S., M.Div., M.C., Arizona State University.


COTTER, ROBIN L. (2005) Biology
- B.A., DePauw University; Ph.D., University of Nebraska Medical Center.

- B.A., M.F.A., Indiana University; J.D., George Mason School of Law; A.R.M., American Institute for Chartered Property Casualty Underwriters.

CUPS, RICHARD (1982) Physics, Engineering
- A.A.S., Luzerne County Community College; B.S., The Pennsylvania State University; M.T., Arizona State University.

DENNIS, DEBORAH S. (1983) Health Information Technology
- B.S., Louisiana Tech University; M.Ed., Northern Arizona University.

- B.S.N., Arizona State University; M.S., University of California, Los Angeles.

DIMAS, PETE (1990) Social Science
- B.A., M.A., Ph.D., Arizona State University.

DORR, DEBRA (1996) Industrial Technology

DOUBLEDAY, DALE (2003) Art
- B.S., M.Ed., Arizona State University.

DOWD, LINDA (2000) English
- B.S., M.A., Northern Arizona University.

- B.A., Oakland University; M.S., Wayne State University.

ENCISO, MARIA D. (1991) Foreign Language
- B.S., M.A., Northern Arizona University.

ERMOIAN, DEBORAH (1999) Mathematics
- B.S., Grand Canyon University; M.Ed., Ph.D., Stanford University.

EROE, GEOFFREY M. (1976) Theatre
- B.A., M.A., University of Northern Colorado; Ph.D., Stanford University.

ESCALANTE, DELIA P. (1976) Foreign Language
- B.A., M.A., University of Arizona.

ETCHART, MARTIN (1995) English
- B.A., M.F.A., Arizona State University; Ph.D., The Union Institute.

EWALD, BONNIE (2001) Nursing
- B.S.N., University of Wisconsin - Milwaukee; M.S., Arizona State University; M.P.H., University of Arizona.

- B.A., Notre Dame College of Ohio; M.S.N., University of Phoenix.

- A.S., Central Arizona College; B.A., Jamestown College; M.S., South Dakota University.
FISHER, MATTHEW (2000) Business
B.A., Brigham Young University; M.A., University of Arizona; C.P.A.

FLADHAMMER, DANA (1997) Applied Business

FLANIGAN, KAREN (1999) Nursing
–B.S.N., M.S., Arizona State University.

FOSTER, VIRGINIA R. (1968) Foreign Language
–B.A., M.A., Ph.D., University of Missouri.

FRANK, BETSY A. (1990) Reading
–B.A., Arizona State University; M.Ed., University of Arizona; Ed.D., Nova Southeastern University.

GALLOWAY, LAURA (1987) Communication/Theatre Arts
–A.A., Lake Forest College; B.A., M.A., M.C., Arizona State University.

GARCIA, LINDA (1991) Dental Hygiene
–A.A., Phoenix College; B.A., M.S., Arizona State University.

GARNER, BRAD (2003) Mathematics
–B.S., Brigham Young University; M.A., Ph.D., University of Maryland.

–A.A.S., Phoenix College; B.S., Ottawa University; M.Ed., Northern Arizona University.

GEDDIS, DIANNE (2002) Health Enhancement
–A.A., Phoenix College; B.A., M.S., Arizona State University.

–A.A.S., Phoenix College.

GIBNEY, MARIAN (1983) Psychology
–B.A., Queens College; M.A., Fordham University; Ed.D., Nova Southeastern University.

GOLISCH, PAUL (2005) Associate Dean
–B.S., Valparaiso University; M.Ed., National-Louis University.

GREEN, KATHRYN (1977) Applied Business

HABERMANN, JUDITH (1990) English
–B.S., Northern State University; M.A., University of Oklahoma.

HALFORD, SHARON (2004) Associate Dean
B.S., M.A., University of Colorado.

HATHY, SANDRA (2001) Business

HAUERT, SCOTT A. (1998) Legal Studies
–B.S., Embry-Riddle University; M.B.A., University of New Mexico; J.D., University of Dayton.

HILDER, KAY (1999) American Sign Language
–B.S., University of Nebraska; M.S., Western Maryland College; M.A., Arizona State University; CI/CT, Registry of Interpreters for the Deaf.

HODGKINS, ANNE V. (1994) Mathematics
–B.S., University of North Texas; M.S., Ed.D., Texas A & M University at Commerce.

HOPKINS, MARSHA ANN (1973) Social Science

HOUSER, HELEN J. (2001) Health Care Education
–B.A., University of Phoenix; M.S.H.A., University of Colorado.

–B.A., M.L.S., University of Arizona; Ph.D., Arizona State University.

JAMESON, BRENT L. (1972) Foreign Language
–B.A., M.A., Brigham Young University.

JENKINS, BEVERLY (2001) Business


JOHNSON III, MORRIS F. (1987) Vice President Student Affairs
–B.A., Dubuque University; M.S.W., University of Iowa.

–B.S., Charter Oak State College; NREMT-P.


KAKAR, CASANDRA (1995) Interim Vice President, Academic Affairs
–B.A., Texas Tech University; M.B.A., Arizona State University.

KAPPS, DEBORAH (1998) Dental Hygiene
–A.A., Phoenix College; B.S., M.P.H., Arizona State University.

KIMBUNDE, JOSEPH (2000) English


KORKAMES, GAIL (1992) Business
–B.A., California State University at Northridge; M.B.A., M.S., University of Texas at Dallas.

–B.S., M.S.T., University of Wisconsin, Whitewater; Ph.D., Arizona State University.

KURTZ-WEIDINGER, DEBORAH (2003) Dental Hygiene

LAIRD, DAVID (1998) Library
–B.A., Arizona State University; B.S.C., M.S., Queen’s University, Belfast, Northern Ireland.

–B.A., Howard Payne University; M.S.S.A., Case Western Reserve University.

LEE, SEUNG-JOO (1997) Chemistry
–B.S., M.S., Kyung-Hee University; Ph.D., Arizona State University.

–B.S.N., M.Ed., Arizona State University; Ph.D., Walden University.

LI, SUI-LIN (1989) Mathematics
–B.A., Providence College; M.S., University of Cincinnati.
LIGON, ELIZABETH (1998) Health Enhancement  
–B.S., Northern Arizona University; B.S.N., Grand Canyon University; M.S., Arizona State University.

LITTLE, BRETT (2003) Administration of Justice  
–B.S., Weber State University.

LOWE, MONICA (1984) Counseling  

LUCAS, STEPHEN (1987) Reading  
–B.A., Missouri State University; M.S.Ed., Southwest Missouri State University.

MACIAS, MARGARET (1993) Counseling  
–A.A., Gateway Community College; B.S.W., Arizona State University; M.A.E., Ed.D., Northern Arizona University.

MARIN, AMY J. (1995) Psychology  
–B.A., University of California, Irvine; M.A., Ph.D., Arizona State University.

MARKS, JOYCE LYNN (1976) Library  
–B.A., University of Illinois; M.L.S., Western Michigan University.

MARTI-SUBIRANA, ANNA (2001) Biology  
–B.S., Ministry of Education and Science, Spain; M.S., Ph.D., Universitat Autonoma de Barcelona, Spain.

MARTINEZ, CLEOPATRIA (1985) Mathematics  
–B.A., University of Denver; M.A., Ed.D., Northern Arizona University.

MATTE, NANCY L. (1994) English  

–B.S., M.A., University of Georgia.

McDaniel, Jr., BILLY GENE (2004) EMT/Fire Science  
–A.A.S., Mesa Community College; B.S., Charter Oak State College.

McINTYRE, PATRICIA E. (1994) Counseling  

MERKEL, KORY (1997) Mathematics  
–B.A., Evergreen State College; M.A.T., Northern Arizona University.

MIEHLS, DONALD (1995) Social Science  
–B.A., Aquinas Institute; B.S., Armed Forces Institute; Lic., Laval University; M.A., Loyola, Aquinas Institute of Theology, Chicago Pontifical Institute; Ph.D., Texas Christian University.

MEYERS, NANCY (2002) ESL/English  

MILLER, LISA (1981) English  
–B.A., M.A., Ph.D., University of Missouri.

MILLER, PAMELA (2001) Mathematics  
–B.A., University of California at Santa Cruz; M.A., Ed.D., Northern Arizona University.

MIRELES, JESSE (1987) Industrial Technology  
–A.A.S., San Jacinto College; B.S., M.Ed., Ed.D., University of Houston.

MITCHELL, MICHAEL B. (1991) English  
–B.A., Dallas Baptist University; M.A., University of Texas at Arlington.

MOORE, JAMES D. (1994) Vice President, Administrative Services  
–B.S., Arizona State University; M.A., Ed.D., Northern Arizona University.

NAVARrete, NANCY (2004) Counseling  
–A.A.S., Mesa Community College; B.A., M.Ed., Northern Arizona University.

NELSON, WILBERT (1996) Associate Dean  
–A.A., El Centro College; B.S.W., East Texas State University; M.S.W., Arizona State University.

O’BRIEN, ELIZABETH (1990) Communication and Theatre  
–B.A., University of Arizona; M.A., University of Maryland.

OFFENBERG, LINDA (2001) Business  
–B.S., University of Cincinnati; M.Ed., Lesley College.

–B.S., Ph.D., Arizona State University.

ORTEGA, CINDY (1998) Reading  
–B.A., M.A., California State University, Long Beach.

–A.A.S., Clovis Community College; B.A., M.A., Eastern New Mexico University; M.A., University of Phoenix.

PEPE, PHILIP (1984) Biology  
–B.S., S.U.N.Y. at Stony Brook; M.S., Ph.D., University of Southern California.

PERRY, RITA H. (2001) Dental Assisting  
–A.A.S., Phoenix College; B.S., M.P.A., Arizona State University; R.D.H., C.D.A.

PETERSON, NELIA (1996) Nursing  
–B.S.N., University of Santo Tomas, Manila, Philippines; M.N.E., University of Phoenix.

PETTERSON, BONNIE J. (1993) Health Information Technology  
–B.S., M.S., University of Wisconsin-Milwaukee; Ph.D., Arizona State University.

PEFFERBAUM, ROSE (1972) Gerontology  
–A.A., Phoenix College; B.A., Pomona College; M.A., University of California at Los Angeles; Ph.D., Certificate in Gerontology, Arizona State University; M.P.H., University of Washington.

PHILLIPS, SYLVIA A. (1975) Applied Arts and Human Sciences  

PINEDA, DAVID (1995) English  

Potts, karen A. (2004) Legal Studies  
–B.S., Northern Arizona University; J.D., Arizona State University.

Price, RONALD D. (1967) Business  
–B.S., M.B.A., Eastern New Mexico University; C.P.A., Arizona.

–A.O.S., Culinary Institute of America, B.S., University of Phoenix.

Reed, Pamela (1996) Art  

Reyes, Roman (1978) Art  
–B.S., Arizona State University; M.I.M., American Graduate School of International Management.
RICHARDSON, DONALD J. (1971) English
-B.A., M.A., Fort Hays State University; Ph.D., Arizona State University.

RIGGS, THOMAS (2002) Interpreter Preparation Program
-B.S., Metropolitan State College; M.A., University of Colorado; ASLTA Professional Certification, National Association of the Deaf.

ROBERTS, KENNETH (1990) Applied Arts & Human Sciences
-B.S., University of Minnesota; M.A., Washington State University.

ROBINSON, SCOTT (1997) Applied Arts & Human Sciences

ROE, CRISTIE E. (1990) English
-B.A., Arizona State University; M.A., Monterey Institute of International Studies; Ph.D., University of Arizona.

ROE, WILLIAM (1984) Psychology
-B.A., M.A., California State University at Northridge.

ROECKLEIN, RENEE M. (1990) Psychology
-A.A., Mesa Community College; B.S., M.A., Ph.D., Arizona State University.

-B.A., M.A., Northern Arizona University.

ROSATI, MARK A. (1993) Biology
-B.S., M.S., Eastern Michigan University.

ROSELLE, ANN M. (2001) Library
-B.A., University of Vermont; M.A., Northwestern University; M.L.S., University of Illinois.

SALIBA, ELIZABETH (1998) Library
-B.A., Scripps College, Claremont, California; M.L.S., University of California, Berkeley.

SANchez, DAVID (2000) Emergency Medical Technology
-B.S., Charter Oak State College; C.E.P.

SANDOVAL, JOSE (TRINO) (1997) Interim Associate Dean
-B.A., California State University at Chico; M.A., Ph.D., Arizona State University.

SCOTT, ROD (2000) Reading

SHAW, DENNIS (1991) Mathematics
-B.S., Greenville College; M.A., Arizona State University; M.A., Ohio State University.

-B.S., Ferris State University; M.A., Eastern Michigan University.

-B.S., University of Maryland; M.A., Webster University.


SODERMAN, EDLYN A. (1987) Legal Studies
-A.A., Phoenix College; B.A., J.D., Arizona State University.

- B.S., Austin Peay State University; M.L.S., George Peabody College for Teachers.

SOLLER, SARA THORNHILL (1990) Communication and Theatre
- B.F.A., Ohio University; M.A., University of Kansas; Ph.D., Northern Arizona University.

SOLLEY, ANNA (1976) Acting President, Phoenix College

SOUNDERS, MARGARET (1987) Nursing
- B.S.N., M.S., Arizona State University.

SOUSA, JAMES (2002) Mathematics
-B.A., Sonoma State University; M.S., California State University at Hayward.

SPEED, DONALD K. (1985) Physics, Astronomy, Geology
-B.A., Bard College; M.S., University of Arizona.

STARK, DIANE (1997) Business
- B.B.A., University of Wisconsin, Eau Claire; M.B.A., Arizona State University.

STEELE, CYNTHIA (1997) Counseling
- A.A., Pima Community College; B.A.E., M.C., Arizona State University.

STIAK, JULIE (2002) Health Care Education
- B.S., M.Ed., Arizona State University.

SUEYOSHI, JOE (1991) Mathematics
- B.A., University of California at Berkeley; M.S., University of Minnesota.

SUNG, HSIAO-HUA (1986) Mathematics
- B.A., Fu-Jen Catholic University; M.S., Texas Tech University; M.A., University of Kansas.

SUTTON, VIRGINIA S. (1994) English

TANKERSLEY, CATHERINE M. (1990) Phlebotomy
- B.S., New Mexico State University, C.L.S.

TATE, PHILIP (1984) Biology
- B.S., B.A., M.A., San Diego State University; D.A., Idaho State University.

THORPE, STEVE G. (2001) Social Science
- B.A., M.A., Ph.D., University of Colorado, Boulder.

- B.S., Grand Canyon University.

VANDE PUTTE, SUZANNE (1990) Nursing
- B.S.N., M.S., M.P.H., Arizona State University.

VAZQUEZ, JULIAN (1999) Foreign Language
- B.A., M.A., Ph.D., Arizona State University.

VIERA, CYNTHIA L. (1991) Sociology, Women’s Studies
- B.S., M.A., Ph.D., Arizona State University.

- B.S., M.S., Oregon State University.

VILLEGAS, AMALIA (1998) Counseling
- B.A., Arizona State University; M.Ed., Texas Technical University; Ph.D., Arizona State University.
emeritus_faculty_and_administration.png
<table>
<thead>
<tr>
<th>Name</th>
<th>Years</th>
<th>Department</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUARD, DONALD V.</td>
<td>(1963-1989)</td>
<td>Psychology</td>
<td>Emeritus</td>
</tr>
<tr>
<td>JACKSON, LILLIAN</td>
<td>(retired 1969)</td>
<td>Nursing</td>
<td>Emeritus</td>
</tr>
<tr>
<td>JOHN, ANN</td>
<td>(retired 1972)</td>
<td>Psychology</td>
<td>Emeritus</td>
</tr>
<tr>
<td>JONES, A. LOUISE</td>
<td>(1971-1992)</td>
<td>Nursing</td>
<td>Emeritus</td>
</tr>
<tr>
<td>JONES, LOYAL H.</td>
<td>(1949-1983)</td>
<td>Biology</td>
<td>Emeritus</td>
</tr>
<tr>
<td>KENNEDY, JAMES R.</td>
<td>(1975-1999)</td>
<td>Biology</td>
<td>Emeritus</td>
</tr>
<tr>
<td>MARICH, MARTIN</td>
<td>(1960-1983)</td>
<td>Physical Education</td>
<td>Emeritus</td>
</tr>
<tr>
<td>MARSHALL, PAUL E.</td>
<td>(1951-1978)</td>
<td>Business</td>
<td>Emeritus</td>
</tr>
<tr>
<td>McLEAN, KATHERINE</td>
<td>(1957-1989)</td>
<td>Chemistry</td>
<td>Emeritus</td>
</tr>
<tr>
<td>MILLER, RICHARD B.</td>
<td>(1966-1986)</td>
<td>English</td>
<td>Emeritus</td>
</tr>
<tr>
<td>MILLS, GILBERT</td>
<td>(1947-1983)</td>
<td>Physics, Geology, Engineering</td>
<td>Emeritus</td>
</tr>
<tr>
<td>MONROE, MARSHALL</td>
<td>(1940-1966)</td>
<td>Foreign Languages</td>
<td>Emeritus</td>
</tr>
<tr>
<td>OEHMKE, ANN</td>
<td>(1962-1986)</td>
<td>Physical Education</td>
<td>Emeritus</td>
</tr>
<tr>
<td>ORMAN, ARTHUR</td>
<td>(1965-1987)</td>
<td>English</td>
<td>Emeritus</td>
</tr>
<tr>
<td>PHELPS, WILMA A.</td>
<td>(1935-1972)</td>
<td>Library</td>
<td>Emeritus</td>
</tr>
<tr>
<td>POLICHINO, LOUIS M.</td>
<td>(1956-1977)</td>
<td>Speech</td>
<td>Emeritus</td>
</tr>
<tr>
<td>REPP, ANN</td>
<td>(1972-1992)</td>
<td>Physical Education</td>
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*(Years of Service to MCCC)**

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CRANDALL, JEWELL (retired 1979)  Home Economics
DOLPHIN, HARRIET (1977-1989)  Art
DRUDING, C. EDWIN (1965-1983)  Psychology
FARRINGTON, ROSEMARIE (1968-1986)  Dental Assisting
HACKLEMAN, RANDOLPH (1963-1976)  Technology
HARRISON, MYRNA (1988-1993)  President
HAUGEN, VIVIAN K. (1973-1983)  Medical Records Technology
HEDGES, LOIS (1975-1983)  Library
HOLMES, LUCILLE (retired 1966)  Communications, English
JAMISON, JUANITA (1955-1973)  English
JENNINGS, VIOLET MAY (1956-1973)  Mathematics
JOFFE, IRWIN L. (1965-1983)  Reading
MACKLIN, LAURA (1961-1973)  English
MAHER, MARY S. (1965-1978)  English
MARLETT, ROBERT (1978-1983)  Technology
McGIRR, CLARENCE (1980-1986)  Research & Development
PETERSON, EULA (retired 1973)  Nursing
PHILLIPS, VIVIAN (1965-1975)  Business
PRATHER, MARIANNE (1991-2004)  Reading
RUSSELL, R. KEITH (1961-1980)  Physics, Engineering
SAMSON, PATRICK (1983-1993)  Medical Records Technology
SHEA, WINIFRED (1984-2001)  Library
TRAMEL, LINDA (1990-2001)  Applied Arts & Human Sciences
VEGA, JOSE de JESUS (1963-1976)  Foreign Language, History
VELLENGA, DOROTHY (1963-1975)  English
WEAVER, LETA (retired 1971)  Library
WICH, SARAH J. (1968-1986)  Reading
WICH, SARAH J. (1968-1986)  Home Economics
WICH, SARAH J. (1968-1986)  Social Science

Phoenix College Administration

President, Acting ........................................ Anna Solley, Ed.D.
Vice President, Academic Affairs, Interim Casandra Kakar, M.B.A.
Associate Dean ........................................ Sharon Halford, M.S.
Associate Dean ......................................... Wilbert Nelson, M.S.W.
Vice President, Student Affairs .......... Morris F. Johnson, III, M.S.W.
Vice President, Administrative Services .... James D. Moore, Ed.D.

Maricopa County Community Colleges

District Governing Board

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Acting Vice Chancellor, Human Resources, .................. Peter Kushibab, J.D.
Vice President, Academic Affairs ............... Maria Harper-Marinick, Ph.D.
Vice Chancellor, Business Services .............. Debra Thompson, M.P.A.
Vice Chancellor, Information Technologies ................. Ronald D. Bleed, M.B.A.
Vice Chancellor, Student Development & Community Affairs ............... Steven Heligot, Ed.D.
Provoest, Downtown Phoenix Campus .............. Jos Leyba, Ed.D.
President, Chandler-Gilbert Community College ........ Maria Hesse, M.B.A.
President, Estrella Mountain Community College ......... Homero Lopez, Ph.D.
President, GateWay Community College ................. Eugene Giovannini, Ed.D.
President, Glendale Community College .................. Kenneth H. Atwater, Ph.D.
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This flowchart is an information tool and is not intended to replace consultation with an advisor. Begin at the math level indicated by math placement scores and/or prior math experience.

**For many AAS and AGS degree programs**

- MAT082 → MAT091 → MAT102

**For many AA degree programs**

- MAT082 → MAT091 → MAT120 → MAT151

**For Business majors**

- MAT082 → MAT091 → MAT120 → MAT151 → MAT172 or GBS220 → MAT212

**For Elementary Education majors**

- MAT082 → MAT091 → MAT120 → MAT151 → MAT156 → MAT157 → MAT206 recommended

**For Math, Science, Engineering, & Computer Science majors**

See advisor for computer classes that will meet the minimum entrance requirements. GCC, PVCC, and MCC have full programs. Other MCCCD Colleges may also. MAT225 is strongly recommended.

- MAT090 or MAT091 → MAT120 → MAT151 → MAT182 → MAT220 → MAT230 → MAT240
- MAT120 → MAT151 → MAT187 → MAT225 recommended → MAT261

Math Department, General Information 602.285.7151.
Department Chair, Cleopatria Martinez, 602.285.7390; Evening Chair, Lucia Kisiel, 602.285.7786.
HOW TO USE YOUR CATALOG

This catalog was developed for you. It includes information about Phoenix College programs, courses, degree requirements, policies, procedures, resources, and services.

The focus of this catalog is on your success. It provides you with the information to be a successful student. It is your responsibility to review the information and use your catalog.

We recommend that you use your catalog in the following ways.

- Use your catalog to help you with your plans to be a successful college student. Review the Academic Calendar, Graduation Requirements, and PC Programs. Prior to selecting your courses, make certain you have the time to meet the course requirements.

- Use your catalog to learn about courses and degree requirements. Knowing what the course is about and how it will fit into your program or academic goals is one of the main requirements for proper course selection. Course Descriptions begin on page 221. Whether your goal is to complete one course or an Associate Degree, Course Descriptions will provide valuable information. If you are working on completing an Associate Degree, you will need to become familiar with the General Education Degree Requirements. Degree information begins on page 74. Degree checksheets to help you keep track of your progress are available in the Advisement Center. If you are planning on completing a degree, or selecting courses prior to transferring to a four-year college or university, you will find information on the Transfer Process (pages 103-112) very helpful.

- Use your catalog to learn where and how to get things done. The catalog will help you locate resources and assist you in becoming familiar with college policies and procedures. Information is available about resources which can help you, such as Academic Advisement, Admissions and Records, Counseling and Career Services, Special Services, Financial Aid, the Learning Center, Library, and the Re-Entry Center. The Student Information section begins on page 6.

- Use your catalog to explore educational and career options available to you. The Counseling Department faculty will help you learn more about your interests, work skills, and personal goals.