

# 2010/11

## Yavapai College CATALOG

### COURSE DESCRIPTIONS



#### A B C D E F G H I J M N P R S T V W

Following is a list of all classes that can be taught by Yavapai College. Not all of these classes are taught every semester. Please see the Class Schedule for a listing of currently offered classes.

#### ■ **ACCOUNTING (ACC)**

##### **ACC106F. QuickBooks Basics (.5).**

Use of QuickBooks Basics to perform the basic accounting operations needed in operating a small business. Operations will include cash and credit sales, basic inventory management, basic payroll, and preparation of end of period reports.

*One lab.*

##### **ACC115. Basic Tax Planning (3).**

Techniques of federal individual, partnership and corporation income tax preparation. Emphasis on tax return preparation, with review of individual income tax law and applications of that law to tax return forms.

*Three lecture.*

##### **ACC116. Advanced Tax Planning and Preparation (4).**

Advanced study in individual, corporate, and partnership taxation.

*Prerequisite: ACC 115.*

*Four lecture.*

##### **ACC121. Introductory Accounting (3).**

General ledger bookkeeping and preparing financial statements.

*Three lecture.*

##### **ACC122. Payroll Accounting (3).**

Payroll functions for a business including timekeeping techniques, payroll accounting records, check writing, preparation of federal and state payroll reports, insurance reports, and retirement plan reports. Manual record keeping and report submission as well as computerized payroll will be covered.

*Prerequisite: ACC 121.*

*Three lecture.*

##### **ACC131. Principles of Accounting I (4).**

Principles and procedures of accrual accounting applied to preparation and interpretation of general purpose financial statements.

*Prerequisite: ACC 121.*

*Four lecture.*

##### **ACC132. Principles of Accounting II (4).**

Introduction to corporate debt and equity accounting issues including present value calculations. Emphasis on accounting for managerial planning and control applicable to corporate business organizations. Preparation of the statement of cash flows.

*Prerequisite: ACC 131.*

*Four lecture.*

##### **ACC161. Computer Accounting Practice (2).**

Use of microcomputers for general ledger bookkeeping and personal finance. Emphasis on solving advanced accounting simulations.

*Prerequisite: ACC 121.*

*One lecture. Three lab.*

##### **ACC162. Microsoft Excel and Access in Accounting Applications (2).**

Use of the spreadsheet software Microsoft Excel and the database software Microsoft Access in the analysis of financial data and generating accounting reports.

*Prerequisite: ACC 121 and CSA 138.*

*One lecture. Three lab.*

##### **ACC211. Governmental and Nonprofit Accounting (3).**

Accounting practices in governmental units such as cities, counties, state agencies and nonprofit organizations. Includes temporary fund balance accounts, budget entries, encumbrances, and tax receivables.

*Prerequisite: ACC 131.*

*Three lecture.*

##### **ACC217. Uses of Financial Information (3).**

Financial statements used by managers, owners, lenders, and other stakeholders in publicly-held corporations. Emphasis on valuation and related economic consequences.

*Prerequisite: ACC 132.*

*Three lecture.*

## COURSE DESCRIPTIONS

### **ACC231. Intermediate Accounting I (4).**

Financial accounting topics, including generally accepted accounting principles application, as well as rationale and clarification of the reasons for specific accounting principles. Includes analysis and use of balance sheets, cash and receivables, inventories, and temporary and long-term investments.

*Prerequisite:* ACC 132.

*Four lecture.*

### **ACC232. Intermediate Accounting II (4).**

Integration of advanced accounting theory and practice, including investments, long and short term liabilities, pension plans, stockholders' equity, and advanced analysis of financial statements.

*Prerequisite:* ACC 231.

*Four lecture.*

### **ACC296. Internship: Accounting (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite:* Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.

### **ACC299. Independent Study Accounting (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ ADMINISTRATION OF JUSTICE (AJS)

### **AJS101. Introduction to Administration of Justice (3).**

Overview of the criminal justice system. Organization and jurisdiction of local, state, and federal law enforcement, judicial, and correctional systems. History and philosophy of each component of the criminal justice system and interrelations among the various agencies. Career opportunities and qualifying requirements.

*Three lecture.*

### **AJS105. Basic Emergency Communications (3).**

Basic concepts and skills in public safety communications for emergency communications employees.

*Three lecture.*

### **AJS109. Substantive Criminal Law (3).**

Philosophy of legal sanctions and the historical development from common law to modern American criminal law. Classifications and general definitions of crimes. Common defenses to crimes.

*Prerequisite:* AJS 101.

*Three lecture.*

### **AJS123. Ethics and the Administration of Justice (3).**

Ethical issues, cultural influences and moral theories as they relate to the justice system. Focus on underlying values and ethical challenges faced by law enforcement, attorneys, the judiciary and correctional staff. Emphasis on critical thinking and value decision making.

*Three lecture.*

### **AJS150. Arizona Detention Officers Basic Training Academy (13).**

Training in basic responsibilities required to be an Arizona Detention officer. Development of professional abilities, and skills required for state certification.

*Prerequisite:* Agency sponsorship required.

*Thirteen lecture.*

### **AJS151. Defensive Tactics for Probation Officers (1).**

Techniques for personal defense used by probation officers in job-related situations. Includes self-defense, search techniques, and control strategies.

*Prerequisite:* Assignment by related agency.

*Three lab.*

### **AJS170. Criminalistics (3).**

Characteristics and elements of forensic science and the processes of collecting, preserving and analyzing different types of physical evidence. Includes organization of a crime laboratory, crime scene processing and legal aspects.

*Three lecture.*

### **AJS200. Current Issues in Criminal Justice (3).**

Current issues, trends, and techniques related to and affecting the criminal justice system.

*Prerequisite:* AJS 101.

*Three lecture.*

### **AJS212. Juvenile Justice Procedures (3).**

History and development of juvenile justice theories, procedures and institutions.

*Prerequisite:* AJS 101.

*Three lecture.*

## COURSE DESCRIPTIONS

### **AJS225. Criminology (3).**

Theories of criminality and the economic, social and psychological impact of crime, victimization, and the relationships between statistics and crime trends. The study of deviance and society's role in defining behavior.

*Prerequisite: AJS 101.*

*Three lecture.*

### **AJS230. The Police Function (3).**

History and development, procedures and methods of operations of law enforcement agencies. Role of the individual law enforcement officer. Career opportunities and the hiring process.

*Prerequisite: AJS 101.*

*Three lecture.*

### **AJS240. The Correction Function (3).**

History and development of correctional theories, practices, and institutions. Modern ideologies and functions associated with both community-based and custodial corrections systems.

*Prerequisite: AJS 101.*

*Three lecture.*

### **AJS260. Procedural Criminal Law (3).**

Procedural criminal law. Emphasis on rationale underlying major court holdings, the resulting procedural requirements, and the effect on the daily operations of the criminal justice system.

*Prerequisite: AJS 101.*

*Three lecture.*

### **AJS270. Community Relations (3).**

Recognition and understanding of community problems; community action programs; methods of coping with crisis situations, victimology, ethnic and minority cultures, environments, crime prevention and police operations.

*Prerequisite: AJS 101.*

*Three lecture.*

### **AJS275. Criminal Investigations (3).**

Theories of criminal investigation. Includes basic investigative techniques of crime scene procedures, case preparation, and interview techniques.

*Prerequisite: AJS 101.*

*Three lecture.*

### **AJS280. Law Enforcement Instructor Certification (3).**

Learning theories, course development and evaluation methods. Effective use of instructional media and creating a learning environment. Successful students may be certified as Arizona Peace officers Standards and Training Board Instructors.

*Prerequisite: Students must be appointed by a law enforcement agency.*

*Three lecture.*

### **AJS296. Internship: Administration of Justice (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **AJS299. Independent Study Administration of Justice (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ ADULT EDUCATION (AED)

### **AED010. Adult Education Placement and Orientation (.5).**

Arizona Department of Education requirements and placement testing prior to enrolling in GED preparation courses.

*One-half lecture.*

### **AED030. Adult Education Secondary Skills (3).**

Secondary-level reading, writing, and math skills through grade level 12.9. Emphasis on GED test preparation.

*Prerequisite: AED 010 and reading, writing, and math at 8.0 on Tests of Adult Basic Education (TABE).*

*Three lecture.*

## ■ AGRICULTURAL EQUINE (AGE)

### **AGE100. Introductory Equine Science (3).**

Introduction to horses as they relate to humans including history and development, adaptation, anatomy, types and classes, breeds, and horsemanship. Emphasis on the care of horses including buildings and equipment, behavior management, and business aspects of ownership.

*Three lecture.*

### **AGE111. Equine Massage and Alternative Therapies (3).**

Identifying the muscles of the horse for alternative therapy. Includes musculoskeletal anatomy, bony land marks, pressure points, and veterinary vocabulary. Use the Equiken system to identify the musculoskeletal system.

*Three lecture.*

## COURSE DESCRIPTIONS

### **AGE125. Equine Behavior Management (3).**

Horse behavioral concepts. Includes origin, mechanisms, flexibility, and management. Includes horse's ability to process information, special senses, communication and social organization, sexual behavior, welfare, and learning.

*Three lecture.*

### **AGE126. Equine Nutrition (2).**

Principles of horse nutrition and application to horse health. Topics include digestive system, function of feeds, nutrient needs, protein, minerals, vitamins, water-soluble vitamins and rations. Emphasis on feeds for horses, their preparation, and the art of feeding.

*Two lecture.*

### **AGE140. Introduction to Horseshoeing (3).**

Basic anatomy and physiology of equine legs and feet, equine conformation, basic blacksmithing, leveling and balancing the foot, and shoeing. Includes hoof trimming, and horse handling.

*Two lecture. Two lab.*

### **AGE141. Basic Horseshoeing for Certification (3).**

Hoof care and shoeing techniques in preparation for the American Farriers Association Certified Farrier Exam. Includes keg shoe modification, hot shoeing, treating disease and injury, and corrective shoeing.

*Prerequisite: AGE 140.*

*Two lecture. Two lab.*

### **AGE150. English and Western Riding I (1).**

Basic English and Western riding skills. Emphasis on safety, haltering and leading, grooming, saddles, bits, seating, trotting, posting and cantering with collection. Includes care of tack and equipment selection.

*Three lab.*

### **AGE151. Human to Horse Connection (2).**

Foundation and experience in reading the body language and temperaments of various horses using natural horsemanship philosophy. Includes theory, psychology, groundwork and mounted exercises to cultivate a cooperative partnership between horse and human. Introduction to equine assisted therapy programs.

*One lecture. Two lab.*

### **AGE152. Fitness for the Horse and Rider (2).**

Emphasis on a relaxed, supple horse and a centered, balanced rider with a secure seat. Includes yoga and Pilates exercises and natural horsemanship as well as safety, maneuvering obstacles and etiquette of handling horses in larger groups in an arena and on the trail.

*One lecture. Two lab.*

### **AGE153. Introduction to Ground Skills with Horses (3).**

Develop ground skills necessary for safety, control and harmony with horses. Emphasis on communication using the round pen for longe line and liberty exercises. Exploration of the horses movement, foot falls and transitions in preparation for riding.

*Three lecture.*

### **AGE154. Making Rope Halters and Other Horse-Handling Equipment (1).**

Basic knot tying and rope splicing principles to make custom rope halters, bridles, reins and lead ropes for horses, mules, llamas, etc. Includes basics of creating a home-based business using this craft.

*Two lab.*

### **AGE155. Equine Driving (1).**

Principles of driving horses. Emphasis on picking the right horse, harness use and function, vehicle maintenance, styles of driving, training requirements, and competitions. Emphasis on horse and driver safety.

*Three lab.*

### **AGE211. Advanced Equine Massage Therapy (3).**

Instruction in full massage routine, muscle location, function and isolation, massage benefits, 70 point locations, contraindications for massage, bony land mark identification, stretching, dental issues and saddle fitting issues using Zahourek methodologies.

*Prerequisite: AGE 111.*

*Three lecture.*

### **AGE220. Equine Health (2).**

Health management of the horse including reorganizing health problems, determining severity of illness or injury, and prescribing a treatment plan. Emphasis on prevention of health problems and early treatments of illness.

*Prerequisite: AGE 100.*

*Two lecture.*

### **AGE225. Horse Breeding (3).**

Applying genetic principles to selected improvement of horses through breeding techniques. Performance traits, heritability and quantitative traits, selection, mating systems, color inheritance and breeder responsibility.

*Two lecture. Three lab.*

### **AGE226. Equine Anatomy and Physiology (3).**

Anatomy and physiology of the equine body systems. Includes skeletal, muscular, respiratory, cardiovascular, neurological, endocrine, digestive and reproductive systems.

*Prerequisite: AGE 100.*

*Three lecture.*

## COURSE DESCRIPTIONS

### **AGE230. Equine Special Events Management (1).**

Special events management for the equine industry. Includes selection of event, marketing, budget, insurance, registration, and facility negotiations.

*One lecture.*

### **AGE250. English and Western Riding II (1).**

Advanced riding techniques for the intermediate or experienced rider in both English and Western styles. Focuses on specific movements between horse and rider as well as training motivators.

*Prerequisite: AGE 150.*

*Three lab.*

### **AGE255. Advanced Equine Driving (1).**

Advanced principles of driving horses. Emphasis on harnessing and hitching, proper vehicle and maintenance, driving technique, and horse and driver safety. Class open to singles and pairs of all sizes of horses, ponies, mules and donkeys.

*Prerequisite: AGE 155.*

*Three lab.*

### **AGE260. Training Techniques in Horsemanship (3).**

Exploration of training techniques for the young, spoiled or difficult horse. Emphasis on breaking techniques and training horses to ride and drive. Methodologies involved in preparing individuals to teach others to train their own horse.

*Two lecture. Three lab.*

### **AGE265. Horse Boarding and Training Facilities (2).**

Boarding and training operations including buildings and equipment, local building codes, fences, and building guidelines for the welfare, safety, health and cost of the horse.

*Two lecture.*

### **AGE296. Internship: Agricultural Science Equine (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*



## ■ AGRICULTURAL SCIENCE (AGS)

### **AGS101. Microcomputers in Agriculture (3).**

Use of Microsoft Word, Excel, and PowerPoint for documentation, accounting and presentations in the agriculture industry.

*Two lecture. Three lab.*

### **AGS102. Agribusiness Management (3).**

Introduction to the latest functions of agribusiness including history, starting and running a business, small business plans, input and output sectors, daily financial operations, and basic economic principles. Emphasizes principles of agricultural economics, and economic activity and analysis.

*Three lecture.*

### **AGS/BIO103. Plant Biology (4).**

An introduction to the growth, development, reproduction, and structure of vascular plants. Fundamental activities of plants including photosynthesis and respiration. Emphasis on agricultural and horticultural crops of Arizona.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

### **AGS105. Soils (3).**

Comprehensive overview of the types of soils commonly found in North America with special emphasis on Southwestern soils. Course investigates the origin, formation, physical and chemical properties of soils and emphasizes soil testing, fertilization, and modifications to soils commonly found in landscapes, gardens and turf.

*Three lecture.*

### **AGS107. Entomology (3).**

Fundamental approaches in the control of greenhouse pests. Categories of pests, management practices, herbicide use, alternative pest control techniques, safety, and integrated pest management.

*Three lecture.*

### **AGS112. Three-Dimensional Computerized Landscape Design (3).**

Design of landscapes for the home and business using 3-D computer imaging for the beginner or advanced student. Includes principles of design, color, plant materials, hardscape features, and irrigation.

*Two lecture. Three lab.*

### **AGS115. Agricultural Mechanics I (3).**

Develop basic principles and operative skills in electricity, and welding/cutting applications which are part of agricultural mechanics operations in the areas of Agriscience and Technology.

*Two lecture. Three lab.*



## COURSE DESCRIPTIONS

### **AGS120. Introduction to the Animal Industry (4).**

Classification of agricultural animals, the reproductive process, behavior, basic genetics, growth and development, basic nutrition, welfare and consumer concerns. Emphasis on beef, sheep, swine, poultry, horses and fish. Alternative animals including rabbits, llamas, ostrich, baitfish, and honeybees.

*Three lecture. Three lab.*

### **AGS121. Agricultural Marketing Technology (3).**

Introduction to marketing in agriculture as well as the concepts of the modern agriculture industry. Includes how to select and develop a marketing plan, the agriculture industry in free enterprise, marketing for profit, motivating consumers and the process of communicating.

*Three lecture.*

### **AGS125. Conservation and Natural Resources (3).**

General concepts related to the conservation and maintenance of natural resources including water, forests, rangelands and wildlife. Includes ecology concepts and foundations for a sustainable future.

*Three lecture.*

### **AGS150. The Greenhouse Environment (3).**

Components of greenhouses including structure types, construction, locating a greenhouse, layout of a greenhouse range, and greenhouse temperature control mechanisms. Emphasis on advantages and disadvantages of each and the appropriate selection of houses for given areas in the horticulture industry.

*Three lecture.*

### **AGS155. Hydroponics for the Home and Classroom (1).**

Construction, design, and use of hydroponic growing units for vegetable production. Includes basic nutrition, lighting, media and growth chambers.

*One lecture.*

### **AGS180. Canine Behavior and Psychology (2).**

Introduction to canine behavior in the human society including methods of affecting positive outcomes for compatible lifestyles. Includes reinforcement techniques, characteristics of major dog groups, health care issues, puppy socialization and canine management.

*Two lecture.*

### **AGS181. Canine Massage Therapy (1).**

Basic canine massage therapy techniques including function and location, land mark identification, contraindications, full massage routine, and muscle locations.

*One lecture.*

### **AGS212. Landscape Installation and Maintenance (4).**

Skills and principles associated with installing and maintaining a landscape including selection of plant material, lawn installation and irrigation installation.

*Three lecture. Three lab.*

### **AGS213. Veterinary Technician State and National Exam Review (3).**

Principles of veterinary medicine as they apply to preparation for the Arizona and National Veterinary Technician exams.

*Prerequisite: Two years full time (or equivalent) experience in veterinary field.*

*Three lecture.*

### **AGS214. Landscape Hardscapes (4).**

Design, build and install landscape hardscape features, including walkways, retaining walls, patios, planters and ornamental ponds.

*Three lecture. Three lab.*

### **AGS215. Agricultural Mechanics II (3).**

Develop principles and operative skills in small engine maintenance and repair, hydraulic design and use, agriculture equipment maintenance and problem solving which are part of agricultural mechanics operations in the area of Agriscience and Technology.

*Two lecture. Three lab.*

### **AGS224. Agricultural Sales Techniques (3).**

Processes involved in moving food and fiber from the producer to the consumer. Emphasis on communicating with and motivating consumers including selling, distributing, advertising, displays, and human relations.

*Three lecture.*

### **AGS231. Turfgrass Science (4).**

Identification of types of grasses associated with sports and recreational turf areas. Involves the establishment and maintenance of turf in the industry of turfgrass science.

*Three lecture. Three lab.*

### **AGS232. Turfgrass Management (4).**

Theory and practice of cultivating and maintaining turfgrass for sports. Emphasis on site development, pest control, grooming, and equipment in recreational turf settings.

*Three lecture. Three lab.*

### **AGS238. Pesticide Management Certification (2).**

Includes pre-emergent and post-emergent pesticides, systemics, contacts, annual weed pests, biennial weed pests, insect and rodent control, applications, equipment, safety procedures, and management programs for the turf industry, home and landscape industry.

*Two lecture.*

## COURSE DESCRIPTIONS

### **AGS250. Horticulture Science I (4).**

Greenhouse production activities including cuttings, seedlings, sowing, tagging, fertilizers, sanitation, nutrition, and elements of container grown crops. Emphasis on production of tomatoes, lettuce, flowers, foliage plants, and bedding plants. Operation of industry standard computer control systems for greenhouses. Emphasis on the ARGUS system for environmental control, watering, fertilization, and shipping.

*Two lecture. Six lab.*

### **AGS252. Horticulture Science II (4).**

Activities conducted in commercial greenhouses including propagation, sowing, distribution, light and temperature management, hardening off, pre-harvest and post harvest handling, inventory, deliveries, and sanitation. Emphasis on final stages of production and care of production. Computerized scheduling of greenhouse operations.

*Two lecture. Six lab.*

### **AGS255. Micro Propagation of Plant Tissue (2).**

Plant tissue culture techniques for cloning, reproduction, and manufacturing including media mixing, cell growth and development, aseptic transfer, manipulation, observation, and documentation.

*One lecture. Three lab.*

### **AGS261. Aquaculture Science (4).**

Introduction to the aquaculture and fisheries industry and the related career opportunities. Basic fish culturing environments and species identification of fresh and saltwater fish. Fish biology, diseases, prevention and treatments. Includes fish feeds and feeding techniques.

*Three lecture. Three lab.*

### **AGS264. Aquaculture Management (4).**

Methodologies used in managing aquaculture systems. Including breeding and rearing procedures of common fin fish, saltwater fish and crustaceans. Field experience in maintaining a rearing facility and producing a food fish from incubation to stocker or market size.

*Three lecture. Three lab.*

### **AGS274. Water Management (3).**

Irrigation techniques for golf courses, greenhouses, aquaculture, and horse production including sizing pipes and fittings, backflow prevention, filtration, pumps, sprinklers, spraybooms, misters, and valves. Includes code requirements, blueprint reading, and bidding.

*Two lecture. Three lab.*

### **AGS280. Zoo and Domestic Animal Care (4).**

Introduction to zoo and domestic animal care. Includes safety issues, zoo orientation, animal observation skills, sanitation, housing, feeding, capture and restraint equipment, animal transport, animal measurements, abnormal behavior and injuries.

*Three lecture. Three lab.*

### **AGS281. Herpetoculture (3).**

A study of the biology, ecology, and taxonomy of reptiles and amphibians. Includes identification techniques, care, maintenance and display.

*Three lecture.*

### **AGS282. Zoo and Domestic Animal Behavior (4).**

Assessment of animal behavior in a variety of species including domestic and exotic animals. Includes internal and external factors influencing animal behavior, social organization, genetics, communication, conflict, mating systems, and biological rhythms.

*Three lecture. Three lab.*

### **AGS296. Internship: Agriculture (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **AGS299. Independent Study Agriculture (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ AIR FORCE ROTC (AFR)

### **AFR101. Foundations of the US Air Force I (1).**

Introduction for cadets to the United States Air Force and the Air Force Reserve Officer Training Corps. Topics include mission and organization of the Air Force, officership/professionalism, and Air Force officer opportunities.

*Prerequisite: Leadership Laboratory is mandatory for AFROTC cadets.*

*One lecture. Two lab.*

### **AFR102. Foundations of the US Air Force II (1).**

Continuation of AFR 101.

*One lecture. Two lab.*

## COURSE DESCRIPTIONS

### **AFR201. The Evolution of USAF Air and Space Power I (1).**

Examination of air and space power through historical perspective. Study of Air Force capabilities and evolution of the modern United States Air Force. Discuss Air Force Core Values and develop communication skills.

*Prerequisite: Leadership Laboratory is mandatory for AFROTC students.*

*One lecture. Two lab.*

### **AFR202. The Evolution of USAF Air and Space Power II (1).**

A continuation of AFR 201.

*One lecture. Two lab.*

## ■ ALLIED HEALTH SERVICES (AHS)

### **AHS100. Fundamentals of Health Care (3).**

Overview of current U.S. health care delivery systems and professions including workforce information, practices, behaviors, and ethical and legal implications.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **AHS103. Phlebotomy (2).**

Theory and practice of basic phlebotomy and specimen processing including laboratory tests, equipment, procedures, ethics, safety, legal issues and quality assurance.

*Prerequisite: Reading Proficiency.*

*One lecture. Three lab.*

### **AHS110. Computers in the Medical Office (2).**

Introduction to use of computers in front office work of clinics and/or related health care agencies. Use of computer software to record patient information, schedule appointments, print reports and produce patient statements and claim forms. Special attention will be given to completing the general medical insurance claim form - HCFA 1500.

*One lecture. Three lab.*

### **AHS120. Foundations of Medical Assisting I (3).**

Introduction to the role of the Medical Assistant. Preparation for work in a medical office including legal aspects, communication, customer service and records management.

*Prerequisite: AHS 100 and AHS130 and BIO160.*

*Three lecture.*

### **AHS121. Foundations of Medical Assisting II (3).**

Introduction to patient assessment, diagnostic and surgical procedures, medication administration, and immunizations.

*Prerequisite: AHS103 and AHS120 and MAT100 or higher or satisfactory score on mathematics skills assessment.*

*Two lecture. Three lab.*

### **AHS 130. Medical Terminology for Patient Care Staff (3).**

Medical terminology used in direct patient care, with special care populations and in special services. Building and analyzing terms using work parts. Body-systems approach to terms related to structure and function, pathologies, and diagnostic procedures. Spelling and pronunciation of terms, medical abbreviations and symbols.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **AHS131. Medical Terminology I (3).**

Introduction to medical vocabulary for students in allied health and science fields. Includes word roots, prefixes, suffixes, and abbreviations. Emphasis on spelling, pronunciation and definition.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **AHS132. Medical Terminology II (3).**

Advanced course for students in allied health and science fields. Includes terminology related to body systems and disorders of body systems. Emphasis on spelling, pronunciation, and interpretation of medical reports. Objectives may be adapted to meet occupational need of the health student.

*Prerequisite: AHS 131.*

*Three lecture.*

### **AHS133. Terminology for Pharmacology (2).**

Terminology associated with pharmacology and the administration of drugs. Introduction to drug standards, pharmacological principles, prescription symbols and abbreviations.

*Prerequisite: AHS 131 and AHS 132.*

*Two lecture.*

### **AHS164. Medical Transcription (3).**

Instruction in medical transcription to develop familiarity with medical terms and speed and accuracy in transcription.

*Prerequisite: AHS 131 and either CSA 130 or CSA 140.*

*Reading Proficiency.*

*One lecture. Four lab.*

### **AHS166. Physician Office Transcription (2).**

Transcription of doctor's office medical records suitable for permanent record of patient care. Development of proper formatting techniques and skills is emphasized.

*Prerequisite: AHS 164.*

*Six lab.*



## COURSE DESCRIPTIONS

### **AHS167. Medical Surgical Transcription (2).**

Transcription of inpatient medical and surgical documents suitable for permanent record of patient care.

*Prerequisite: AHS 164.*

*Six lab.*

### **AHS168. Diagnostic Therapeutic Transcription (2).**

Transcription of reports in the diagnostic and therapeutic areas of medicine for both inpatient and outpatient health care offices. Emphasis on clarifying and editing dictation discrepancies.

*Prerequisite: AHS 164.*

*Six lab.*

### **AHS230. Complementary and Alternative Health Therapies (3).**

Examination of complementary and alternative health practices. Emphasizes the integration of body, mind and spirit with an evaluation of specific techniques and therapies. Application of critical thinking skills to analyze and compare conventional and alternative healthcare practices.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **AHS296. Internship: Allied Health Services (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **AHS299. Independent Study Allied Health Services (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ AMERICAN SIGN LANGUAGE (ASL)

### **ASL101. Beginning American Sign Language I (4).**

Principles, methods, and techniques of American Sign Language skills, with emphasis on developing visual/receptive skills and basic communication.

*Four lecture.*

### **ASL102. Beginning American Sign Language II (4).**

American Sign Language vocabulary, grammar, receptive, and expressive technique development.

*Prerequisite: ASL 101.*

*Four lecture.*

### **ASL131. Conversational Sign Language (3).**

Conversational approach to communicating with deaf people who sign. Basic foundation of grammar and deaf culture with emphasis on expressively signing and recognizing key phrases related to work, survival, leisure, medical and emergency situations.

*Three lecture.*

### **ASL201. Intermediate American Sign Language I (4).**

Proficiency and development of intermediate expressive and receptive skills. Emphasis on practical application of American Sign Language skills and cross-cultural communication.

*Prerequisite: ASL 102.*

*Four lecture.*

### **ASL296. Internship: American Sign Language (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **ASL299. Independent Study American Sign Language (1-6).**

Supervised Special project in this field. Approval of supervising Division Dean is required.

## ■ ANTHROPOLOGY (ANT)

### **ANT101. Stones, Bones, and Human Origins (3).**

Introduction to physical anthropology. Emphasis on population genetics, primate evolution and behavior, and fossil man.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **ANT102. Introduction to Cultural Anthropology (3).**

Survey of anthropological principles with emphasis on concept of culture and nature of man as a social animal.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

## COURSE DESCRIPTIONS

### **ANT104. Buried Cities and Lost Tribes (3).**

Introduction to the portion of human history that extends back 2.5 million years before the time of written records and archives. Emphasis on study of the world prehistory of humankind from a global perspective.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **ANT201. Forensic Anthropology (3).**

Introduction to forensic anthropology. Emphasis on the examination of human skeletal remains for law enforcement agencies to determine the identity of unidentified bones.

*Prerequisite: ENG 101 or ENG 103.*

*Three lecture.*

### **ANT211. Women in Cross-Cultural Perspective (3).**

Cross-cultural study of definition, trends, and issues of women's status by examining and evaluating operative forces behind women's role in society.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **ANT214. Magic, Witchcraft and Healing: The Supernatural in Cross-Cultural Perspective (3).**

Comparative anthropological survey of supernatural practices employed by western and non-western peoples in dealing with life crises, adversity, misfortune, bad luck, illness, death and similar phenomena beyond human control.

*Prerequisite: ENG 101 or ENG 103.*

*Three lecture.*

### **ANT230. Principles of Archeology (3).**

Introduction to methods, theory, and techniques used in archaeology. The scope of human prehistory from the earliest human cultures to the rise of complex civilizations.

*Prerequisite: ENG 101 or ENG 103.*

*Three lecture.*

### **ANT231. Southwestern Archeology (3).**

Survey of man's prehistory in the southwestern United States beginning with the earliest evidence of man in the Southwest and concluding with the period just before Spanish contact.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **ANT232. Indians of the Southwest (3).**

Survey of major Indian groups of the southwestern United States: Pueblo, Navajo, Apache, Papago, Pima, River Yuman and Mountain Yuman (Yavapai, Hualapai, Havasupai). Emphasis on historical factors that have led to culture change. Development of these groups from Spanish contact to present.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **ANT296. Internship: Anthropology (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **ANT299. Independent Study Anthropology (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ ARMY MILITARY SCIENCE (AMS)

### **AMS101. Basic Military Science I (1).**

Organization and development of the United States Army. Includes military courtesy, discipline, customs and traditions of the service. Historical perspective of the different branches of the United States Army and the role they have played in national freedom. Optional fitness program.

*One lecture. One lab.*

### **AMS102. Basic Military Science II (1).**

Fundamentals of land navigation that includes map reading, terrain identification, intersection, resection and polar coordinates. Study of roles the active Army Forces, Army Reserve Forces and Army National Guard play in national defense. Optional fitness program.

*One lecture. One lab.*

### **AMS203. Basic Leadership and Military Management I (1).**

Interdisciplinary approach to personal management skills, values and leadership. More advanced land navigation training. Optional fitness program.

*One lecture. One lab.*

## COURSE DESCRIPTIONS

### **AMS204. Basic Leadership and Military Management II (1).**

Interdisciplinary approach to leadership and management. Introduction to military drill and ceremonies. Optional fitness program.

*One lecture. One lab.*

### ■ **ART (ART)**

#### **ART105. Art Gallery Management (2)**

Introduction to practices and procedures of galleries and museums. Includes management of gallery spaces and exhibition and marketing of artwork.

*Two lecture.*

#### **ART110. Drawing I (3).**

Perspective and visual perception studied as related to developing artistic visual growth in perceiving our environment. Emphasis on analysis of objects and their compositional placement within pictorial construction. Application of design principles.

*One lecture. Five lab.*

#### **ART111. Drawing II (3).**

Development of technical and perceptual skills. Emphasis on composition as developed by shape, form, color and the special dynamics of plastic space. Application of design principles.

*Prerequisite: ART 110.*

*One lecture. Five lab.*

#### **ART112. Two-Dimensional Design (3).**

Introduction to visual language utilized in all areas of art. Basic compositional principles and elements of two-dimensional design practiced through assigned projects. Various media explored. Application of design principles.

*Two lecture. Four lab.*

#### **ART113. Three-Dimensional Design (3).**

Study of design principles with emphasis on three-dimensional aesthetics. Planning of sculptural, utilitarian, and environmental objects. Application of design principles.

*Two lecture. Four lab.*

#### **ART114. Color (3).**

Principles of color theory related to the visual arts. Includes variety of media. Application of design principles.

*One lecture. Five lab.*

#### **ART115. Color Pencil/Pastel (3).**

Color pencils and pastels as medium for drawing and painting. Emphasis on development of creative expression and study of color blending. Application of design principles.

*Prerequisite: ART 110.*

*One lecture. Five lab.*

#### **ART120. Ceramics I (3).**

Introduction to ceramics hand building techniques. Includes primary use of glazes, glaze applications, kiln firing processes and kiln atmosphere. Application of design principles.

*One lecture. Five lab.*

#### **ART121. Ceramics II (3).**

Concentration on use of the potter's wheel and other clay-building methods, further development of glazing and firing. Application of design principles.

*Prerequisite: ART 120.*

*One lecture. Five lab.*

#### **ART122. Low Fire Ceramics (3).**

Design, formulation and application of low-fire clays and finishing surfaces. Application of low fire glazes and firing techniques. Application of design principles.

*Prerequisite: ART 120.*

*One lecture. Five lab.*

#### **ART124. Stained Glass I (3).**

Exploration of copper foil and lead came techniques of stained glass, including precision glass cutting, and creative application of these techniques in producing interior and architectural art pieces. Application of design principles.

*One lecture. Five lab.*

#### **ART125. Stained Glass II (3).**

Basic lead and copper foil techniques with addition of acid etching, sand blasting and more advanced design problems. Emphasis on individual creativity. Application of design principles.

*One lecture. Five lab.*

#### **ART/WEB130. Web Site Design I (3).**

Introduction to design and production of Web pages for publishing on the Internet using Adobe Creative Suite software. Application of design principles.

*Two lecture. Three lab.*

#### **ART131. Graphic Design I (4).**

Creative solutions to problems of visual communication. Skill development in basic advertising layout and design. Basic typography and comprehensive roughs using Adobe Creative Suite software. Application of design principles.

*Prerequisite: ART 112 (may be taken concurrently).*

*One lecture. Seven lab.*

## COURSE DESCRIPTIONS

### **ART132. Graphic Design II (4).**

Creative solutions of advanced problems of visual communication. Skill development in advertising, logos, advanced layout and packaging using Adobe Creative Suite Software. Application of design principles.

*Prerequisite: ART 131.*

*One lecture. Seven lab.*

### **ART137. Adobe Photoshop I (3).**

Digital image fundamentals. Technical and creative use of Adobe® Photoshop® image manipulation software. Use of peripheral commercial hardware and software for image capture. Application of design principles.

*Two lecture. Three lab.*

### **ART139. Fundamentals of Video Editing and DVD Authoring (2).**

Fundamentals of video editing, sound design and DVD production. Aesthetic and technical aspects of digital media. Nonlinear editing of visual and audio material and output for display. Application of design principles.

*One lecture. Two lab.*

### **ART140. Jewelry I (3).**

Introduction to jewelry fabrication techniques for non-ferrous metals and associated materials. Application of design principles.

*One lecture. Five lab.*

### **ART141. Jewelry II (3).**

Advanced jewelry techniques, surface embellishment, fabrication, forging, and joining non-ferrous metals. Application of design principles.

*Prerequisite: ART 140.*

*One lecture. Five lab.*

### **ART142. Lapidary I (2).**

Introduction to the tools, machinery and processes of the lapidary arts. Orientation to various geological source materials. Application of design principles.

*One lecture. Two lab.*

### **ART144. Furniture and Woodworking I (3).**

Introduction to furniture design, joinery, machining, hand skills, assembly and finishing techniques. Application of design principles.

*One lecture. Five lab.*

### **ART145. Furniture and Woodworking II (3).**

Advanced furniture design, joinery, jig building, and woodworking techniques. Application of design principles.

*Prerequisite: ART 144.*

*One lecture. Five lab.*

### **ART 146. Traditional Southwest Furniture Making (3).**

Introduction to traditional southwestern furniture design and construction. Emphasis on Spanish Colonial and Spanish Colonial revival on Ponderosa pine. Application of design principles.

*One lecture. Five lab.*

### **ART147. Wood Turning I (3).**

Study of theory and design of wood lathe-turned objects. Includes wood-turning techniques, use of wood lathe and associated tooling. Application of design principles.

*One lecture. Five lab.*

### **ART150. Photography I (3).**

Fundamentals of photography. Creative camera operation. Identifying, measuring and controlling light values. Basic darkroom techniques and controls including film processing, contact printing and enlarging. Exhibition quality photography. Application of design principles.

*One lecture. Five lab.*

### **ART151. Photography II (3).**

Advanced photographic techniques. Advanced study of various films, silver emulsion papers and chemical processes. Advanced printing and presentation techniques. Effects of lens filters. Advanced metering and exposure compensation. Experimental approaches to photographic problems. Application of design principles.

*Prerequisite: ART 150.*

*One lecture. Five lab.*

### **ART154. Digital Photography I (3).**

Creative digital camera operation. Identifying, measuring and controlling light values. Digital darkroom techniques, workflow applications and output processes. Application of design principles. Requires a digital single lens reflex (SLR) camera with manually adjustable aperture, shutter speed, and focus.

*Prerequisite: ART 137 (may be taken concurrently).*

*One lecture. Five lab.*

### **ART156. Photographic Lighting (3).**

Fundamentals of photographic lighting. Understanding, measuring and controlling lighting situations. Studio and location lighting. Application of design principles.

*Prerequisite: ART 150 or ART 154.*

*Two lecture. Three lab.*

## COURSE DESCRIPTIONS

### **ART157. Digital Photography II (3).**

Advanced creative digital camera operation and exposure control. Advanced digital darkroom techniques, workflow applications and output processes. Application of design principles. Requires a digital single lens reflex (SLR) camera with manually adjustable aperture, shutter speed, and focus.

*Prerequisite: ART 154 and either ART 237 or ART 256 (may be taken concurrently).*

*One lecture. Five lab.*

### **ART160. Printmaking I (3).**

Introduction to printmaking techniques including monoprint, collograph, relief and elementary intaglio printing. Exploration of different methods of inking, registration, hand and press techniques. Application of design principles.

*One lecture. Five lab.*

### **ART162. Monoprint I (3).**

Introduction to principles of water-base and oil-base techniques for this single print process. Techniques of registration and color overlays. Application of design principles.

*One lecture. Five lab.*

### **ART170. Weaving I (3).**

Weaving on four-harness loom. Basic weaving skills, loom components and weaving materials. design and drafting of simple fabric structures. Application of design principles.

*One lecture. Five lab.*

### **ART171. Weaving II (3).**

Advanced project planning, design and drafting skills. Development of critical thinking skills related to weaving design and craftsmanship. Application of design principles.

*Prerequisite: ART 170.*

*One lecture. Five lab.*

### **ART173. Fabric Structures (3).**

Exploration of fiber construction using fabric building techniques. Application of design principles.

*One lecture. Five lab.*

### **ART180. Sculpture I (3).**

Introductory exploration of sculpture through fabrication, casting and carving. Use the human form and abstraction for creative problem solving. Application of design principles.

*One lecture. Five lab.*

### **ART181. Sculpture II (3).**

Advanced sculpture processes: modeling, mixed media, casting, and stone carving. Develop personal imagery and aesthetics through sculptural form. Application of design principles.

*Prerequisite: ART 180.*

*One lecture. Five lab.*

### **ART182. Sculpture Welded Metal I (3).**

Exploration of sculpture using Oxyacetylene torches and GMAW (wire) arc welding processes. Emphasis on welding, cutting, and shaping metal to explore sculptural forms. No prior welding experience is necessary. Application of design principles.

*One lecture. Five lab.*

### **ART183. Sculpture Welded Metal II (3).**

Continued exploration of sculpture using Oxyacetylene torches and GMAW (wire) arc welding processes. Assignments expand personal imagery in metal sculpture. Application of design principles.

*Prerequisite: ART 182.*

*One lecture. Five lab.*

### **ART190. Oil/Acrylic Painting I (3).**

Study and experimentation in painting techniques employed by modern and old masters. Emphasis on personal creativity and uniqueness of expression. Application of design principles.

*Prerequisite: ART 110.*

*One lecture. Five lab.*

### **ART191. Oil/Acrylic Painting II (3).**

Development of personal expression through study of different techniques of painting. Application of design principles.

*Prerequisite: ART 190.*

*One lecture. Five lab.*

### **ART193. Plein-Air Painting (3).**

Outdoor landscape painting with emphasis on fostering creative expression in visual interpretation of natural forms through the study of composition, color and perspective. Application of design principles.

*Prerequisite: ART 110.*

*One lecture. Five lab.*

### **ART194. Watercolor I (3).**

Exploration of transparent qualities of watercolor medium. Techniques and materials used to stimulate personal creativity and uniqueness of expression. Application of design principles.

*Prerequisite: ART 110.*

*One lecture. Five lab.*

### **ART195. Watercolor II (3).**

Independent development using the watercolor medium. Study of varied techniques will be utilized to meet individual needs. Application of design principles.

*Prerequisite: ART 194.*

*One lecture. Five lab.*



## COURSE DESCRIPTIONS

### **ART196. Portraiture I (3).**

Emphasis on portraiture techniques for individuals proficient in a specific medium. Application of design principles.

*Prerequisite: ART 110 and ART 190.*

*One lecture. Five lab.*

### **ART197. Portraiture II (3).**

Advanced study of portraiture personalizing techniques and palettes. Emphasis on capturing the subject's personality. Application of design principles.

*Prerequisite: ART 196.*

*One lecture. Five lab.*

### **ART198. Art Topics: (1).**

Exploration of art media. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*One lecture.*

### **ART200. Art History I (3).**

Western art from the Paleolithic period to the Middle Ages. Painting, sculpture and architecture are evaluated in historical context. Application of design principles.

*Prerequisite: ENG 101 or ENG 103; or COM 135 and ENG 136.*

*Three lecture.*

### **ART201. Art History II (3).**

Western art from Renaissance period to Twentieth Century. Painting, sculpture and architecture are evaluated in historical context. Application of design principles.

*Prerequisite: ENG 101 or ENG 103; or COM 135 and ENG 136.*

*Reading Proficiency.*

*Three lecture.*

### **ART202. 20th Century Art (3).**

Critical inquiry of visual arts and aesthetics of the Twentieth Century. Survey includes the history, analysis, evaluation of the fine arts, architecture, craft, product and graphic design. Application of design principles.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **ART203. History of Photography (3).**

Historical survey of movements in art from the origins of photography to the present. Emphasis on the medium's impact upon society and other visual art forms. Application of design principles.

*Prerequisite: ENG 101.*

*Three lecture.*

### **ART210. Life Drawing I (3).**

Developing skills and expressiveness in drawing a basic form, construction and gesture of the human figure. Application of design principles.

*Prerequisite: ART 110.*

*One lecture. Five lab.*

### **ART211. Life Drawing II (3).**

Emphasis on drawing forms. Personal growth and individual techniques developed through projects emphasizing various media and techniques in drawing history. Application of design principles.

*Prerequisite: ART 210.*

*One lecture. Five lab.*

### **ART212. Life Painting (3).**

Techniques of figure painting with an emphasis on the form, construction and gesture of the figure. Application of design principles.

*Prerequisite: ART 110 and ART 190.*

*One lecture. Five lab.*

### **ART220. Ceramics III (3).**

Advanced study of clay building methods, glazing and firing techniques in development of individual style. Application of design principles.

*Prerequisite: ART 121.*

*One lecture. Five lab.*

### **ART221. Ceramics IV (3).**

Advanced study of clay building methods, glazing and firing techniques in further development of individual style. Opportunity for supervised independent work. Application of design principles.

*Prerequisite: ART 220.*

*One lecture. Five lab.*

### **ART222. Advanced Projects: Ceramics (3).**

Advanced study of clay building methods, glazing and firing techniques with emphasis on design and honing personal aesthetic.

*Prerequisite: ART 221.*

*One lecture. Five lab.*

### **ART223. Ceramic Sculpture (3).**

Exploration and experimentation of subtractive and additive clay techniques to create 3-D constructions. Use of texture, glaze and cold patina finishes. Application of design principles.

*Prerequisite: ART 120.*

*One lecture. Five lab.*

## COURSE DESCRIPTIONS

### **ART224. Clay and Glaze Chemistry for the Ceramic Artist (3).**

Introduction and exploration of ceramic materials and application in ceramic artwork. Application of design principles.

*Prerequisite: ART 120.*

*Two lecture. Three lab.*

### **ART230. Digital Printing Technology and Applications (3).**

Fundamentals of digital print technology, including color management, short run print processes, and fine art giclee printing. Application of design principles.

*Prerequisite: ART 137.*

*One lecture. Five lab.*

### **ART231. Graphic Design Illustration (4).**

Contemporary styles in editorial, story, and advertising illustration. Skill development in information graphics, figure illustration and product design using Adobe Creative Suite software. Application of design principles.

*Prerequisite: ART 110 or ART 112.*

*One lecture. Seven lab.*

### **ART232. Portfolio Development (2).**

Develop traditional and computerized graphic design and fine arts portfolios. Create resume and other career search materials. Develop advanced design and technical skills. Exhibition skills. Application of design principles. Completed body of art work needed for class.

*One lecture. Three lab.*

### **ART233. Adobe Illustrator (2).**

Use of Adobe Illustrator software. Creation of original art and type applications, use of scanner, manipulation of existing clip art. Application of design principles.

*Two lecture.*

### **ART234. Advanced Graphic Design Projects (3).**

Advanced design projects using a combination of Adobe Creative suite programs. Skill development in corporate design, self-promotion, and advanced layout and packaging. Application of design principles. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Prerequisite: ART 131 and ART 231.*

*Two lecture. Two lab.*

### **ART235. Magazine Production (2).**

Design and production of "Threshold," the Yavapai College Creative Arts Magazine. Application of design principles.

*Prerequisite: ART 132.*

*One lecture. Two lab.*

### **ART236. Digital Pre-Press (2).**

Preparation and printing of computer files for final output using a variety of software. Emphasis on final output of type and graphics. Application of design principles.

*Prerequisite: ART 132.*

*Two lecture.*

### **ART237. Adobe Photoshop II (3).**

Still photography digital manipulation. Use of computer and peripheral hardware and associated commercial software with Adobe Photoshop software to alter photographic images. Production of still image files and hardcopy output. Application of design principles.

*Prerequisite: ART 137.*

*Two lecture. Three lab.*

### **ART/WEB238. Web Site Design II (3).**

Intermediate design and production of Web pages for interactive media using Adobe Creative Suite software. Includes Adobe Flash and Adobe Dreamweaver, with integration of Adobe Illustrator and Adobe Photoshop. Application of design principles.

*Prerequisite: ART/WEB 130 or CSA/WEB 144.*

*Two lecture. Three lab.*

### **ART242. Lapidary II (2).**

Advanced techniques using specialized lapidary tools to create cabochons from rare materials. Application of design principles.

*Prerequisite: ART 142.*

*One lecture. Two lab.*

### **ART245. Advanced Projects Jewelry (3).**

Advanced individual projects in jewelry and metalsmithing. Includes review of processes, tools, and materials. Application of design principles. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Prerequisite: ART 140 and ART 141.*

*One lecture. Five lab.*

### **ART247. Wood Turning II (3).**

Use of the wood lathes for creative expression. Contemporary tools and techniques used on and off the lathes to create artistic woodturnings. Application of design principles.

*Prerequisite: ART 147.*

*One lecture. Five lab.*

### **ART248. Advanced Projects in Wood (3).**

Designing, fabricating functional pieces and/or making sculpture to explore the potentials of the medium. Projects are to be a unified series. Application of design principles. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Prerequisite: ART 145.*

*One lecture. Five lab.*

## COURSE DESCRIPTIONS

### **ART249. Advanced Projects in Wood Turning (3).**

Emphasis on design and varied techniques to explore the potentials of three-dimensional form. Projects are to be a unified series working toward portfolio development. Application of design principles. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Prerequisite: ART 247.*

*One lecture. Five lab.*

### **ART252. Photography III (3).**

Exploration of photographic approaches. Advanced study of film and silver emulsion paper developers. Use of pre-visualization and post-visualization techniques. Introduction to photographic markets. Medium format and digital cameras in the studio. Color transparency film development. Advanced studio lighting. Application of design principles.

*Prerequisite: ART 150 and ART 151.*

*One lecture. Five lab.*

### **ART253. Photography IV (3).**

The photographic market. Marketplace research and portfolio development. Approaches to photographic careers. Large format camera operation. Commercial studio lighting using film and digital media. Portrait photography: both classic and alternative. Nontraditional media and processes. Contemporary and historical photographic influences in the marketplace. Application of design principles.

*Prerequisite: ART 150 and ART 151 and ART 252.*

*One lecture. Five lab.*

### **ART254. Digital Photography III (2).**

Application of digital photographic techniques in the photographic market. Commercial studio lighting. Portrait, landscape and documentary photography. Nontraditional media and processes. Marketplace research and portfolio development. Advanced application of design principles.

*Prerequisite: ART 157 and either ART 237 or ART 256.*

*One lecture. Two lab.*

### **ART256. Digital Imaging (3).**

Still photography digital manipulation. Employing the computer and commercial hardware and software to alter photographic images for commercial art application. Production of still image files or hardcopy products. Application of design principles.

*Prerequisite: ART 137 and either ART 150 or ART 154.*

*Two lecture. Three lab.*

### **ART257. Digital Photomontage (2).**

Use of multiple image sources to create a single image. Elements of photomontage. Fine art digital output. Application of advanced imaging techniques in creating seamless or illusionistic aesthetic statements. Application of design principles.

*Prerequisite: ART 150 or ART 154 and either ART 237 or ART 256.*

*One lecture. Two lab.*

### **ART259. Advanced Projects Photography (3).**

Advanced individual projects in photography. Includes review of processes, tools and materials. Application of design principles. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Prerequisite: Art 253.*

*One lecture. Five lab.*

### **ART260. Printmaking II (3).**

Basic techniques of etching, aquatint, and softground processes. Use of engraving, etching tools and roulettes for hand-texturing techniques. Single plate color techniques. Application of design principles.

*Prerequisite: ART 160.*

*One lecture. Five lab.*

### **ART261. Printmaking III (3).**

Advanced study of printmaking techniques in areas such as combined plate processes of embossment, collograph, texturing build-up techniques and multiple-plate processes of intaglio and relief printing. Application of design principles.

*Prerequisite: ART 260.*

*One lecture. Five lab.*

### **ART262. Monoprint II (3).**

Techniques of single-plate building for depth of color, value, texture, linear or value properties. Exploration of lift-off and other techniques in both water and oil media. Application of design principles.

*Prerequisite: ART 162.*

*One lecture. Five lab.*



## COURSE DESCRIPTIONS

### **ART281. Advanced Projects in Sculpture (3).**

Design and techniques for additive process, carved and/or mixed media sculpture to explore the potentials of three-dimensional form. Projects are to be a unified series of projects working toward portfolio development. Application of design principles. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Prerequisite: ART 181.*

*One lecture. Five lab.*

### **ART283. Advanced Projects in Welded Sculpture (3).**

Emphasis on design and fabrication of metal sculpture to explore the potentials of the medium. Unified series of projects working toward portfolio development. Application of design principles. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Prerequisite: ART 183.*

*One lecture. Five lab.*

### **ART292. Advanced Projects in Oil and Acrylic (3).**

Advanced projects in oil and acrylic painting. Review of techniques and materials. Application of design principles. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Prerequisite: ART 191.*

*One lecture. Five lab.*

### **ART293. Advanced Projects in Watercolor (3).**

Advanced projects in watercolor painting. Review of techniques and materials. Application of design principles. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Prerequisite: ART 195.*

*One lecture. Five lab.*

### **ART296. Internship: Art (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **ART298. Workshop: (2).**

Exploration and application of media techniques. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*Two lecture.*

### **ART299. Independent Study Art (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ AUTOMOTIVE (AUT)

### **AUT101. Introduction to Automotive Mechanics (2).**

Fundamentals of the automobile including the repair and maintenance of components.

*Two lecture.*

### **AUT102. Diesel Service Techniques (2).**

Overview of basic diesel equipment systems. Includes safety and basic operational knowledge, care, and maintenance inspection of engine, fuel, suspension, brakes, electrical, and drive train systems. Diesel shop organization structure, product line information, and use of Caterpillar's service and repair information system.

*One lecture. Three lab.*

### **AUT104. Automotive and Motorcycle Pinstriping and Gold Leafing (1).**

Design and lay out of pinstriping or surface leafing on various materials with an emphasis on automobiles and motorcycles.

*Two lab.*

### **AUT105. Introduction to Auto Body Repair and Painting (4).**

Introduction to auto body repair including basic fabrication and painting. Emphasis on nonstructural body repair, filling, sanding, primers, and spraying techniques.

*Three lecture. Three lab.*

### **AUT106. Automotive/Motorcycle Custom Painting (2).**

Professional techniques for automotive/motorcycle paint finishing. Includes color selection, mixing, masking, sanding, spraying and post-paint care.

*Prerequisite: AUT 105.*

*One lecture. Two lab.*

### **AUT107. Autographics: Airbrushing & Pinstriping (2).**

Basic theory and fundamentals of automotive/motorcycle airbrushing and pinstriping.

*One lecture. Two lab.*

### **AUT108. Diesel Engines (4).**

Theory, diagnosis and service common to all diesel engines. Includes engine rebuilding and performance testing. Preparation for the ASE Certification test on Medium/Heavy Truck Diesel Engines.

*Two lecture. Six lab.*

## COURSE DESCRIPTIONS

### **AUT109. Diesel Electrical Systems Design and Diagnosis (3).**

Diesel starting, charging, and accessory electrical systems and components. Emphasis on electrical system diagnosis and electrical repair. Includes industry standard diagnostic electrical equipment and testing techniques. Preparation for the ASE certification test on Electrical/Electronic Systems.

*Two lecture. Three lab.*

### **AUT110. Advanced Airbrushing Techniques (2).**

Advanced airbrushing techniques including airbrushing with pearls, metal flakes, candles, transparencies, and translucents. Special faux effects including portraits and real fire.

*Prerequisite: AUT 107.*

*One lecture. Two lab*

### **AUT111. Autobody Metal Welding and Repair (2).**

Removal, replacement, and repair of body panels, door skins, fender patch, rocker panels, floor components, and quarter panels.

*One lecture. Two lab.*

### **AUT113. Diesel Fuel Systems (3).**

Theory, diagnosis and service of hydro-mechanical and electronic diesel fuel systems. Includes analyzing fuel system components and system operational characteristics. Emphasis on testing and service procedures of Caterpillar's mechanical and computer controlled fuel systems. Preparation for the ASE Certification test related to heavy duty diesel fuel systems.

*Two lecture. Three lab.*

### **AUT122. Automatic and Manual Trans/Transaxle (5).**

Theory, diagnosis and repair of selected GM, Ford and Chrysler automatic transmissions, manual transmissions, clutches, drive lines and differentials.

*Four lecture. Three lab.*

### **AUT123. Brakes (4).**

General braking principles, terms, definitions, and other functions connected with the automobile braking system. Correct operation and use of brake servicing equipment for drum and disc brakes.

*Three lecture. Three lab.*

### **AUT124. Heavy Equipment Drive Train (3).**

Theory, diagnosis, and service of clutches, driveline, synchro transmissions and final drives, torque converters, and automatic transmission. Includes proper repair and service of assemblies for standard and automatic transmissions. Preparation for the ASE Certification Test on Manual and Automatic Drive Trains.

*Two lecture. Three lab.*

### **AUT125. Heating and Air Conditioning (3).**

Theory of heat transfer, forms of matter, refrigeration cycle, and operating principles of automotive air conditioning systems. Fundamentals in testing, repairing, disassembling and assembling components of heating and air conditioning systems.

*Two lecture. Three lab.*

### **AUT126. Suspension and Steering (4).**

Principles of suspension system geometry and steering systems operation. Adjustment, correction, repair and replacement components of system components.

*Three lecture. Three lab.*

### **AUT128. Diesel Heating and Air Conditioning (3).**

Basic operating principles, diagnosis, and service of modern automotive and diesel heating and air conditioning systems including R12 and 134A. Includes an in-depth study of a/c system operation, diagnostic and service procedures, and environmental concerns. Preparation for ASE certification test on Heating and Air Conditioning.

*Two lecture. Two lab.*

### **AUT131. Engine Performance (5).**

Principles of operation, diagnosis and repair of engine fuel and ignition systems. Use of diagnostic oscilloscope to repair malfunctioning fuel and ignition systems.

*Four lecture. Three lab.*

### **AUT132. Electrical Systems (5).**

Electrical principles and diagnosis and repair of batteries, charging systems, starting systems, ignition systems and use of diagnostic oscilloscope.

*Four lecture. Three lab.*

### **AUT135. Heavy Equipment Suspension, Steering and Brake Systems (3).**

Theory, diagnosis and the repair of heavy equipment suspension, steering and brake systems. Emphasis on tires and wheels, steering components, suspension types, and hydraulic and air brake systems. Diagnostic and service techniques of suspension, steering and braking systems.

*Prerequisite: MET 160.*

*Two lecture. Three lab.*

### **AUT151. Engine Repair (5).**

Theory of operation, disassembly, measurement and repair of blocks, heads, and their component parts in automotive gasoline powered engines.

*Three lecture. Six lab.*



## COURSE DESCRIPTIONS

### **AUT208. Advanced Diesel Engine Repair (3).**

Advanced block, crankshaft, bearing, and cylinder head diagnosis and repair.

*Prerequisite: AUT 108.*

*One lecture. Six lab.*

### **AUT209. Diesel Machine Hydraulics (3).**

Theory, diagnosis and service of the Pilot Operated Hydraulic System. Includes load sensing pressure compensated (LSPC) hydraulic system, the electro-hydraulic system and the hydrostatic system. Troubleshooting procedures and repair verifications.

*Two lecture. Three lab.*

### **AUT225. Diesel Computerized System Controls (2).**

Diesel equipment power train electronic control systems and electronic engine/power train control operation, component operation, trouble shooting techniques, and proper repair of these systems.

*Prerequisite: AUT 109.*

*One lecture. Three lab.*

### **AUT252. Advanced Engine Performance (3).**

Advanced concepts of electronic fuel injection system theory of operation, diagnosis and repair.

*Prerequisite: AUT 131 (may be taken concurrently).*

*Two lecture. Three lab.*

### **AUT253. Advanced Engine Repair (3).**

Advanced block, crankshaft, bearing, and cylinder head diagnosis and repair.

*Prerequisite: AUT 151 (may be taken concurrently).*

*Two lecture. Two lab.*

### **AUT255. Shop Management (3).**

Use and interpret a parts order form, repair order form and weekly profit/loss statement. Customer relations, sales promotion and work order management.

*Three lecture.*

### **AUT275. Basic Automotive Upholstery (2).**

Introduction to automotive and motorcycle upholstery. Includes power sewing machines, tools, and new coverings for bucket, bench and motorcycle seats.

*One lecture. Two lab.*

### **AUT276. Advanced Upholstery (2).**

Advanced techniques in automotive and motorcycle upholstery. Includes headliners, carpeting, door panels, and other interior accessories.

*Prerequisite: AUT 275.*

*One lecture. Two lab.*

### **AUT295. Apprenticeship: Diesel (3).**

Supervised field experience. Repeatable for a total of twelve credit hours towards degree/certificate requirements.

### **AUT296. Internship: Automotive (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **AUT299. Independent Study Automotive (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ AVIATION (AVT)

### **AVT110. Private Pilot Helicopter Ground (4).**

Fundamentals of aerodynamics, helicopter operation and performance. Includes navigation, instruments, weather systems and hazards.

*Prerequisite: Admission to the Private Pilot-Helicopter program.*

*Three lecture. Three lab.*

### **AVT111. Private Pilot Helicopter Flight I (5).**

Fundamentals of basic helicopter operations. Includes one-on-one supervised cross-country flights.

*Corequisite: AVT 110.*

*Two lecture. Nine lab.*

### **AVT112. Private Pilot Helicopter Flight II (5).**

Flight training including supervised and solo cross-country flights and intermediate operations. Preparation for Federal Aviation Administration private pilot helicopter oral and practical exam.

*Prerequisite: AVT 111.*

*Two lecture. Nine lab.*

### **AVT120. Instrument Pilot Helicopter Ground (3).**

Instrument navigation, Instrument Flight Rule (IFR). traffic system and procedures, dead reckoning, IFR Radio navigation, use of various instrumentation systems, IFR charts, weather reports and forecasts, transponders, radars, radio aids, anti-icing/deicing systems, preflight checks, aeronautical decision making.

*Prerequisite: AVT 110.*

*Three lecture.*

## COURSE DESCRIPTIONS

### **AVT121. Instrument Pilot Helicopter Flight (5).**

Flight by reference to instruments. Emphasis on instrument preflight, navigation, approach, emergency, and post-flight procedures. Includes the combination of a Federal Aviation Administration (FAA) approved flight-training device (simulator) and actual flight time in preparation for FAA instrument helicopter oral and practical exam.

*Corequisite: AVT 120.*

*Two lecture. Nine lab.*

### **AVT131. Private Pilot Ground School (3).**

Fundamentals of aerodynamics, airplane operation and performance, earth's atmosphere and weather systems, radio communications and navigation (aeronautical chart reading and course plotting). Use of aeronautical information manual, Federal Aviation Administration (FAA) regulations and other publications. Preparation for FAA private pilot computer test, oral portion of private pilot practical test, and/or the oral portion of a biennial flight review.

*Three lecture.*

### **AVT132. Instrument Ground School (3).**

Instrument navigation and the instrument environment, departure, enroute and approach procedures, instrument federal aviation regulations. Emergency and lost communications procedures and weather and other related topics. Preparation for Federal Aviation Administration instrument rating computer test, oral portion of instrument rating practical test, and/or the oral portion of an instrument proficiency check.

*Prerequisite: AVT 131.*

*Three lecture.*

### **AVT210. Commercial Pilot Helicopter Ground (3).**

Designed for students who are both private pilot and instrument flight rated for helicopter flight and are seeking commercial pilot rating. Includes advanced helicopter components, advanced aerodynamics, high altitude meteorology, cross country flight, and commercial Federal Aviation Administration regulations.

*Prerequisite: AVT 120.*

*Three lecture.*

### **AVT211. Commercial Pilot Helicopter Flight (5).**

Advanced helicopter flight operations and navigation, including mountain flying techniques. Preparation for Federal Aviation Administration commercial pilot helicopter oral and practical test.

*Corequisite: AVT 210.*

*Two lecture. Nine lab.*

### **AVT220. Flight Instructor Helicopter Ground (3).**

Instructional strategies and planning, communications, student evaluation, the learning process and flight instructor responsibilities.

*Prerequisite: AVT 210.*

*Three lecture.*

### **AVT221. Flight Instructor Helicopter Flight (2).**

Techniques for giving one-on-one instruction to helicopter student pilots and critiquing student performance. Preparation for Federal Aviation Administration flight instructor helicopter oral and practical test.

*Corequisite: AVT 220.*

*One lecture. Three lab.*

### **AVT230. Flight Instructor Instrument Helicopter Ground (2).**

Instrument pilot teaching techniques utilizing Instrument Flight Rules (IFR) regulatory guidelines. Preparation to take Federal Aviation Administration flight instructor instrument helicopter written test and a portion of the oral and practical exam.

*Prerequisite: AVT 220.*

*Two lecture.*

### **AVT231. Flight Instructor Instrument Helicopter Flight (2).**

Teaching flying in the clouds and poor weather solely by reference to aircraft instruments. Includes teaching in a flight-training device (simulator). Preparation for Federal Aviation Administration flight instructor instrument helicopter oral and practical test.

*Corequisite: AVT 230.*

*One lecture. Three lab.*

### **AVT240. Helicopter Pilot Preventative Maintenance (1).**

Basic helicopter maintenance theory, documentation, and standard industry practices to return an aircraft to service in accordance with Federal Aviation Administration standards. Emphasis on maintenance tasks that pilots are authorized to perform on helicopters.

*Prerequisite: AVT 110.*

*One-half lecture. One and one-half lab.*

### **AVT299. Independent Study Aviation (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.



# 2010/11

## Yavapai College CATALOG

### COURSE DESCRIPTIONS



A B C D E F G H I J M N P R S T V W

#### ■ **BIOLOGY (BIO)**

##### **BIO100. Biology Concepts (4).**

Basic principles and concepts of biology. Methods of scientific inquiry, energetics and metabolism, genetics, evolution and natural selection. Not for majors in the biological or preprofessional sciences. Duplicate credit for BIO 100 and BIO 156 will not be awarded.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

##### **BIO/AGS103. Plant Biology (4).**

Introduction to the growth, development, reproduction, and structure of vascular plants. Fundamental activities of plants including photosynthesis and respiration. Emphasis on agricultural and horticultural crops of Arizona.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

##### **BIO/ENV105. Environmental Biology (4).**

Introduction to ecological systems, natural resources, and applications to environmental issues. Includes population, community, and ecosystem analysis. Emphasis on field, laboratory, and writing activities.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

##### **BIO108. Concepts in Plant Biology (4).**

Principles of plant biology with an emphasis on human relevance including plants as a source of food, fiber, medicine, and other commercially important uses. Not for majors in the biological or preprofessional sciences.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

##### **BIO109. Natural History of the Southwest (4).**

Biological history of plants and animals of major biotic communities in the Southwest with special emphasis on Arizona.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

##### **BIO117. Birds of the Region I (3).**

Study of local birds including identification, behavior and ecology.

*Two lecture. Three lab.*

##### **BIO118. Birds of the Region II (3).**

Expanded study of local birds with emphasis on behavior, the life cycle, including growth, development, and reproduction.

*Prerequisite: BIO 117.*

*Two lecture. Three lab.*

##### **BIO119. Field Study of Southwestern Birds (2).**

Study of birdlife in selected areas of the southwestern United States. Emphasis on vegetative communities, bird habitats, and avian specialties.

*Prerequisite: BIO 117.*

*One lecture. Three lab.*

##### **BIO156. Human Biology for Allied Health (4).**

An introductory biology course for allied health majors with an emphasis on humans. Topics include fundamental concepts of cell history, histology, microbiology, and genetics. Duplicate credit for BIO 100 and BIO 156 will not be awarded.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

##### **BIO160. Introduction to Human Anatomy & Physiology (4).**

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.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

##### **BIO181. General Biology I (4).**

Biological principles emphasizing structure and function at the molecular, cellular, and organismal levels of biological systems. Secondary school chemistry strongly recommended. Primarily for biology majors and preprofessional students in health-related fields.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

## COURSE DESCRIPTIONS

### **BIO182. General Biology II (4).**

Principles of plant and animal structure, function, diversity, evolution, and ecology of populations and communities emphasizing biotic interactions. Primarily designed for biology and pre-professional majors.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

### **BIO201. Human Anatomy and Physiology I (4).**

Structure and function of the human body. Topics include cells, tissues, integumentary, muscular, skeletal, and nervous systems.

*Prerequisite: BIO 156 (Preferred), or BIO 100 or BIO 181.*

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

### **BIO202. Human Anatomy and Physiology II (4).**

Structure and function of the human body. Topics include reproductive, endocrine, circulatory, respiratory, urinary, and digestive systems.

*Prerequisite: BIO 201. Reading Proficiency.*

*Three lecture. Three lab.*

### **BIO205. Microbiology (4).**

Introduction to microorganisms and viruses of medical importance. Chemical and physical methods of microbial control, bacterial, fungal, protozoal, and viral drug therapy. The immune system response to infection, transmission of human disease and common clinical presentation of various diseases.

*Prerequisite: BIO 156 (Preferred) or BIO 100 or BIO 181, and CHM 138 (Preferred) or CHM 130 or CHM 151. Reading Proficiency.*

*Three lecture. Three lab.*

### **BIO296. Internship: Biology (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **BIO299. Independent Study Biology (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ BUSINESS ADMINISTRATION (BSA)

### **BSA100. Workplace Dynamics (1).**

Techniques essential for successful employment. Human relations, self-evaluation, and peer/employer perception. Employee/employer relationships and job satisfaction.

*Prerequisite: Reading Proficiency.*

*One lecture.*

### **BSA101. Career Connections (1).**

Techniques to enhance job search and employment success. Emphasis on creating the tools to make connections in the world of work. Topics include job search skills, workplace communication, ethics and critical thinking.

*Prerequisite: Reading Proficiency.*

*One lecture.*

### **BSA105. Business English (3).**

Developing or reviewing good language skills for occupational purposes. Covers spelling, punctuation, capitalization, sentence structure and word usage. Utilizes business-oriented materials.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **BSA110. Personal Finance (3).**

Information for making personal and family financial decisions. Includes budgeting, saving, credit, installment buying, insurance, buying vs. renting a home, investment, and estate disposal through will and trust.

*Three lecture.*

### **BSA111. Creative Leadership (1).**

Lead, motivate and inspire your team with creative leadership.

*One lecture.*

### **BSA112. Leadership: Juggling Multiple Priorities (1).**

Basic techniques to increase team collaboration. How effective leaders spend their time.

*One lecture.*

### **BSA113. Leadership Communication: Leading Out Loud (1).**

Speaking skills and communication techniques for leaders.

*One lecture.*

### **BSA120. Principles of Supervision (3).**

Supervisory principles and skill building. Includes decision making, problem solving, time management, leadership models, and communication process. Emphasis on selecting, motivating and evaluating employees.

*Three lecture.*

## COURSE DESCRIPTIONS

### **BSA130. Business Financial Applications (3).**

Foundation and experience in evaluating inventory, preparing financial statements, determining taxes, reconciling bank statements, preparing payroll and solving other financial problems necessary in business fields, including administrative management, accounting, office administration, and finance.

*Three lecture.*

### **BSA131. Introduction to Business (3).**

Introduction to the function of business. Overview of marketing, management, economics, finance, and accounting. Concepts of government and business, business ethics and international trade. Emphasis on current business issues.

*Three lecture.*

### **BSA132. Ethics in Business (3).**

Techniques of moral reasoning and argumentation used to analyze and resolve modern business issues: legal issues, corporate responsibility, workers' rights and responsibilities, technological issues, information, and advertising.

*Three lecture.*

### **BSA140. Human Relations in Business (3).**

Study of basic business behavior patterns. Human aspects of business, as distinguished from economic and technical aspects, and how they influence efficiency, morale, and management practice.

*Three lecture.*

### **BSA141. Principles of Investment (3).**

Fundamentals of corporate finance and elementary accounting with emphasis on operation of the security market, security analysis, and planning an investment program from viewpoint of individual investor.

*Three lecture.*

### **BSA150. Business Leadership (1).**

Development of leadership qualities in business. Emphasis on character, self-confidence, scholarship, and establishment of career goals. Lab includes field trips, state, regional and national conferences.

*One lecture. One lab.*

### **BSA162. Executive Transcription (3).**

Executive transcription to develop familiarity with business English and document formatting. Speed and accuracy in transcription is emphasized.

*Prerequisite: CSA 130 or CSA 140.*

*One lecture. Four lab.*

### **BSA163. Legal Transcription (3).**

Legal correspondence and documents dictated and transcribed from machine transcription. Techniques in preparing legal documents and forms. Production standards of legal office emphasized.

*Prerequisite: CSA 130 or CSA 140.*

*One lecture. Four lab.*

### **BSA165. Innovations in Business Technology (1).**

Analysis of traditional and automated office structures and designs. Emphasis on current software, hardware, and office ergonomics.

*One lecture.*

### **BSA210. International Business (3).**

Business principles pertaining to international markets and trade. Global perspective of investments, finances, operations, and monetary systems.

*Three lecture.*

### **BSA220. Principles of Management (3).**

Principles of management that have general applicability to all types of enterprise. Basic management philosophy and decision making principles involved in planning, directing and controlling. Recent concepts in management.

*Three lecture.*

### **BSA221. Entrepreneurship (3).**

Introduction to economic, social and human factors necessary to opening and operating a business. Emphasis on writing and analyzing business plans, developing marketing strategies and raising capital to start a new business.

*Three lecture.*

### **BSA223. Human Resource Management (3).**

Human resource theory and practice, planning, recruitment, placement, employee development, evaluation, benefits and services, health and safety, and employee relations.

*Three lecture.*

### **BSA224. Records and Database Management (3).**

Study of the comprehensive field of records management emphasizing the principles and practices of effective records management for manual and automated records systems.

*Three lecture.*

### **BSA225. Administrative Office Management (3).**

Office management including management of administrative office resources, supervision and staffing issues, and filing and records management practices.

*Three lecture.*



## COURSE DESCRIPTIONS

### **BSA229. Management Problems (3).**

Examination of how the business organization constructs, organizes, extends, maintains, and renews its competitive advantage in the marketplace.

*Three lecture.*

### **BSA230. Principles of Marketing (3).**

Survey of marketing problems and possible solutions. Retail and wholesale areas with emphasis on the consumer's needs and relationship to marketing practices.

*Three lecture.*

### **BSA232. Business Statistical Analysis (3).**

Survey of standard tools of statistical analysis. Topics include descriptive measures, probability, discrete probability distributions, continuous probability distributions, confidence intervals, hypothesis testing, and regression analysis.

*Prerequisite: MAT 122.*

*Three lecture.*

### **BSA233. Business Communications (3).**

Communication theory, writing for the workplace, business letters and reports, electronic communication, professional presentations and communicating for employment.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **BSA234. Quantitative Methods (3).**

Exploration of basic models of statistical decision making, linear programming, inventory management, CPM and simulation with emphasis on model building. Use of standard computer programs.

*Prerequisite: BSA 232.*

*Three lecture.*

### **BSA235. Principles of Economics-Macro (3).**

An analysis of the national economy. Topics include macroeconomics problems, policy, standard analyses, international economics, and current thought.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **BSA236. Principles of Economics-Micro (3).**

An analysis of markets. Topics include consumer choice, demand and supply, analyses of market structures, market failures, and current thought.

*Three lecture.*

### **BSA237. Legal Environment of Business (3).**

Examination of legal framework governing rules of conduct among businesses and impact on establishing business policy.

*Three lecture.*

### **BSA268. Retail Management and Merchandising (3).**

Explanation of consumer markets and retailing as key forces in business development and expansion. Emphasis on behavior and ideas in a business environment. Includes retail establishments, technological impact on retail and merchandise, and globalization of retail enterprise.

*Three lecture.*

### **BSA296. Internship: Business Administration (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **BSA299. Independent Study Business (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.



# 2010/11

## Yavapai College CATALOG

### COURSE DESCRIPTIONS



A B C D E F G H I J M N P R S T V W

#### ■ CHEMISTRY (CHM)

##### **CHM/ENV121. Environmental Chemistry (4).**

Atomic structure, the Periodic Table, chemical bonding and reactions with emphasis on environmental applications: the atmosphere and air pollution, water and water pollution, pesticides, food additives, and nuclear wastes.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

##### **CHM130. Fundamental Chemistry (4).**

Introduction to the study of chemistry as a basis for understanding our complicated world. Overview of classification, structure, and chemical behavior, including inorganic, organic, and biological materials.

*Prerequisite: MAT 092 or one year of high school algebra or satisfactory score on mathematics skills assessment.*

*Reading Proficiency.*

*Three lecture. Three lab.*

##### **CHM138. Chemistry for Allied Health (5).**

Elements of general, organic and biochemistry. A study of the chemical behavior of matter for nursing and allied health applications.

*Prerequisite: MAT 092 or MAT 122 or MAT 142 or MAT 152.*

*Reading Proficiency.*

*Four lecture. Three lab.*

##### **CHM151. General Chemistry I (5).**

Exploration of chemical measurement, classification, stoichiometry, and structure/function relationships for inorganic, organic and biological materials. Chemical principles are presented at a level appropriate for science majors and pre-professional students.

*Prerequisite: MAT 122 or higher or two years of high school algebra. Reading Proficiency.*

*Four lecture. Three lab.*

##### **CHM152. General Chemistry II (5).**

Advanced topics in general chemistry including chemical kinetics, equilibrium, acid-base and electrochemistry. Chemical principles are presented at a level appropriate for science majors and pre-professional students.

*Prerequisite: CHM 151. Reading Proficiency.*

*Four lecture. Three lab.*

##### **CHM235. General Organic Chemistry I (4).**

Chemistry of organic compounds with emphasis on reaction mechanisms, stereo-chemistry, and structure. Chemical principles are presented at a level appropriate for science majors, and pre-professional students. Concurrent registration in CHM 235L recommended.

*Prerequisite: CHM 151. Reading Proficiency.*

*Four lecture.*

##### **CHM235L. General Organic Chemistry I Lab (1).**

Laboratory techniques and practice with emphasis on separations, purification, synthesis and spectroscopic identification of organic structures. For science majors and pre-professional students.

*Prerequisite: CHM 235 (may be taken concurrently).*

*Reading Proficiency.*

*Three lab.*

##### **CHM236. General Organic Chemistry II (4).**

Advanced topics in organic chemistry including the synthesis and reactions of aromatic and carbonyl compounds. Chemical principles are presented at a level appropriate for science majors and pre-professional students. Concurrent registration in CHM 236L recommended.

*Prerequisite: CHM 235. Reading Proficiency.*

*Four lecture.*

##### **CHM236L. General Organic Chemistry II Lab (1).**

Additional techniques in organic chemistry: preparation, separation and identification of organic compounds.

*Prerequisite: CHM 235L.*

*Three lab.*

##### **CHM296. Internship: Chemistry (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

## COURSE DESCRIPTIONS

### **CHM299. Independent Study Chemistry (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ COLLEGE HONORS PROGRAM (CHP)

### **CHP181. Honors Colloquium I (1).**

Special topics for College Honors Program participants in their first semester of college study. Admission to College Honors Program.

*One lecture.*

### **CHP182. Honors Colloquium II (1).**

Special topics for College Honors Program participants in their second semester of college study. Admission to College Honors Program.

*One lecture.*

### **CHP281. Honors Colloquium III (1).**

Special topics for College Honors Program participants in their third semester of college study. Admission to College Honors Program.

*One lecture.*

### **CHP282. Honors Colloquium IV (1).**

Special topics for College Honors Program participants in their fourth semester of college study. Admission to College Honors Program.

*One lecture.*

### **CHP296. Internship: College Honors (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **CHP299. Independent Study College Honors (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ COMMUNICATIONS (COM)

### **COM100. Introduction to Human Communication (3).**

Introduction to the essential elements of human communication and behavior, with emphasis on intrapersonal, interpersonal, group, public communication, and oral communication skills important to personal and professional settings.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **COM131. Fundamentals of Speech Communication (3).**

Study of the essential elements of oral communication, with major emphasis on public speaking. Includes use of multimedia technologies for presentations.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **COM134. Interpersonal Communication (3).**

Build healthy personal and professional relationships. Includes listening, coping with criticism, resolving conflicts, managing emotions, nonverbal communication, and developing empathy for gender and cultural differences.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **COM135. Workplace Communication Skills (3).**

Oral and written workplace communication skills. Application of individual and group communication strategies to secure and maintain employment.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **COM217. Introduction to Argumentation and Debate (3).**

Basic concepts and theories of argumentation. Emphasis on basic argumentation skills and their application to a variety of communication environments.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **COM296. Internship: Communication (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

## COURSE DESCRIPTIONS

### **COM299. Independent Study Communication (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ **COMPUTER NETWORKING TECHNOLOGY (CNT)**

### **CNT100. Introduction to Networking Technology (3).**

Introduction to technologies, terminology, and skills used in the world of data networking. Emphasis on practical applications of networking and computer technology to real-world problems, including home and small-business network setup.

*Three lecture.*

### **CNT101. Maintain and Protect Your Computer (2).**

Strategies to protect personal computers from viruses, spyware and intruders. Perform critical maintenance tasks for optimal computer performance. Focus is on computers running the Windows operating system.

*Two lecture.*

### **CNT110. A+ Computer Technician Certification (4).**

Install, configure, support, and troubleshoot personal computers. Emphasis on PC hardware, and installation, operation, and upgrade procedures. Focus on practical networking in a PC environment along with server hardware maintenance and troubleshooting. Preparation for the Comp TIA A+ Certification exam. This course, with CNT 120, prepares the learner for the Comp/TIA Server+ Certification Exam.

*Preparedness recommendations: Experience using a computer keyboard and accessing the Internet with a web browser.*

*Three lecture. Three lab.*

### **CNT115. Network+: Networking Technologies Certification (4).**

A broad range of networking technologies is examined. Topics include network media, topologies, protocols, operating systems, network management, and security. Preparation for the Comp TIA Network+ certification exam.

*Three lecture. Three lab.*

### **CNT120. Introduction to Windows Server (3).**

An introduction to the Windows Server line of network operating systems. Topics include installation, file systems, networking, directory services, file and printer sharing, and security. Extensive hands-on experience with realistic scenarios to help students apply new concepts and sharpen problem-solving skills.

*Two lecture. Three lab.*

### **CNT121. Windows Client Operating System(3).**

A thorough examination of the Microsoft Windows client operating system. Installation, management, and support of the Windows client operating systems in a network environment. Includes advanced topics such as disk management, secure network configuration, disaster recovery, and performance tuning. Preparation for the Microsoft Windows MCTS certification exam.

*Prerequisite: CNT100 or CNT 115 or CNT 120.*

*Two lecture. Three lab.*

### **CNT122. Windows Server I (4).**

Configuration of a Windows Server operating system. Topics include Active Directory services, group policy, DNS, and certificate services. Preparation for the Windows Server MCTS certification exam.

*Prerequisite: CNT 120.*

*Three lecture. Three lab.*

### **CNT123. Windows Server II (3).**

Configuration and management of a Windows Server network infrastructure. Topics include TCP/IP, DHCP, DNS, file and printer sharing, security, and network policy and access services. Prepares students for the Windows Server MCTS certification exam.

*Prerequisite: CNT 120.*

*Two lecture. Three lab.*

### **CNT130. Linux+:Linux Operating System Certification (4).**

Installation, management, and support of the Linux operating system. Advanced topics including disk management, configuration of network services, and security. Prepares students for the CompTIA Linux+ certification requirements.

*Prerequisite: CNT 115 or CNT 120 or CNT 121.*

*Three lecture. Three lab.*

### **CNT135. Security+: Implementing and Maintaining Network Security (3).**

Network security concepts, communication security, network infrastructure security, basics of cryptography and operational/organizational security. Emphasis on network authentication and authorization, securing network devices and services, virus remedies, preventing network attacks, and securing remote access. Prepares students for the Comp/TIA Security+ certification.

*Prerequisite: CNT 115 or CNT 140.*

*Two lecture. Three lab.*

## COURSE DESCRIPTIONS

### **CNT140. Cisco Networking Fundamentals (4).**

Introduction to computer networking standards and operation. Includes network topologies, network addressing, basic network design, and cable installation. First of four courses to prepare students to pass the Cisco Certified Network Associate (CCNA) certification examination.

*Prerequisite: CNT 115 or CNT 120.*

*Three lecture. Three lab.*

### **CNT150. Cisco Networking Router Technologies (3).**

Introduction to network routing and router configuration. Includes routing protocols, Cisco IOS commands and operation, and network design using routers. Second of four courses to prepare students to pass the Cisco Certified Network Associate (CCNA) certification examination.

*Prerequisite: CNT 140.*

*Two lecture. Three lab.*

### **CNT155. Wireless Networking Fundamentals (3).**

Wireless networking technologies, wireless security, and wireless LAN design best practices. Emphasis on hands-on skills. Helps prepare students for industry wireless certifications.

*Prerequisite: CNT 115 or CNT 120 or CNT 140.*

*Two lecture. Three lab.*

### **CNT160. Cisco Advanced Routing and Switching (3).**

Intermediate routing concepts and configurations. Configure and install Local Area Networks (LANs) with an emphasis on LAN switching. Design and management of advanced networks. Third of four courses to prepare students to pass the Cisco Certified Network Associate (CCNA) certification examination.

*Prerequisite: CNT 150.*

*Two lecture. Three lab.*

### **CNT170. Cisco WAN Concepts and Projects (3).**

Introduction to the design and configuration of wide area networks (WANs). Includes terminology and concepts of Integrated Services Digital Network (ISDN); Frame Relay and Point-to-Point Protocol (PPP). Cisco threaded case study project and CCNA exam review. Fourth of four courses to prepare students to pass the Cisco Certified Network Associate (CCNA) certification examination.

*Prerequisite: CNT 160.*

*Two lecture. Three lab.*

### **CNT189. Computer Networking Topics (2).**

Topics include network security (including firewall implementation), personal wireless devices, Voice-over-IP (VOIP) integration, Network Attached Storage (NAS), and network performance monitoring tools.

*Prerequisite: CNT 115 or CNT 120.*

*One lecture. Three lab.*

### **CNT296. Internship: Computer Networking Technology (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree or certificate requirements as required by the program; and have completed the internship application process.*

## ■ **COMPUTER NUMERICAL CONTROL (CNC)**

### **CNC101. CNC Machine Operator (2).**

Basic principles and operative skills in the operation of CNC milling machine and lathes.

*One lecture. Three lab.*

### **CNC102. CNC Machine Setup (2).**

Basic principles and operative skills to set up and operate through 1st article part CNC mills and lathes.

*Prerequisite: CNC 101.*

*One lecture. Three lab.*

### **CNC201. Computer Aided Drafting for CNC Machining (3).**

Two- and three-dimensional design of machinery parts commonly used in CNC industry manufacturing. Includes design and illustration of parts, tooling sequencing, using FeatureCam software, part cutting, and NC Code.

*Prerequisite: CNC 101 (may be taken concurrently).*

*Two lecture. Two lab.*

## ■ **COMPUTER SYSTEMS & APPLICATIONS (CSA)**

### **CSA100. Getting to Know Your PC (1).**

Practical course for new owners or first-time users of personal computers. Basic introduction to setting up your computer equipment, understanding terminology, and installation of software and hardware. Emphasis on basic skills required to operate a personal computer.

*Three lab.*

### **CSA101. Windows Essentials (1).**

Introduction to Microsoft Windows. Emphasis on personal computer operations, accessing and storing of information, and desktop management.

*Three lab.*



## COURSE DESCRIPTIONS

### **CSA102. Fundamentals of Personal Computing (1).**

Introduction to computer software applications and basics of computer hardware. Includes computer related vocabulary and computer operations.

*Three lab.*

### **CSA103. Using Computers in the Workplace (1).**

Introduction to essential computer concepts, vocabulary, keyboarding and word processing skills. Emphasis on entry-level employability skills.

*Three lab.*

### **CSA/WEB104. Internet Essentials (1).**

Introduction to the world of the Internet. Includes surfing the World Wide Web, using e-mail, search engine and downloading files.

*Three lab.*

### **CSA105. Meet the Macintosh Using Appleworks (2).**

Introduction to the Macintosh computer and computing concepts. Exploration of integrated applications software including word processing, data base, spreadsheets and graphics.

*One lecture. Three lab.*

### **CSA108A. Workshop: Microsoft Windows Fundamentals (.5).**

Introduction to the Microsoft Windows operating system environment.

*One-half lecture.*

### **CSA108B. Workshop: Microsoft Windows Tools and Management (.5).**

Working with programs, files, and folders within the Windows operating system environment.

*One-half lecture.*

### **CSA108C. Workshop: Microsoft Word Basics (.5).**

Introduction to word processing concepts and the Microsoft Word software program.

*One-half lecture.*

### **CSA108D. Workshop: Microsoft Word Intermediate (.5).**

Formatting features, graphics and templates in Microsoft Word.

*One-half lecture.*

### **CSA108E. Workshop: Microsoft Word Advanced (.5).**

Microsoft Word Advanced Features: Forms, Mail Merge, Master Documents, and Macros.

*One-half lecture.*

### **CSA108F. Workshop: Microsoft Excel Basics (.5).**

Introduction to spreadsheet concepts and features of the Microsoft Excel program.

*One-half lecture.*

### **CSA108G. Workshop: Microsoft Excel Intermediate (.5).**

Using charting, formatting, list management, and audit features in Microsoft Excel spreadsheet software.

*One-half lecture.*

### **CSA108H. Workshop: Microsoft Excel Advanced (.5).**

Advanced features of Microsoft Excel including PivotTables, Analytical options, and macros.

*One-half lecture.*

### **CSA108I. Workshop: Microsoft PowerPoint Basics (.5).**

Introduction to Microsoft PowerPoint and creating, organizing and delivering an effective presentation.

*One-half lecture.*

### **CSA108J. Workshop: Microsoft PowerPoint Advanced (.5).**

Advanced features of PowerPoint including adding movies, sound and advanced animation techniques for sophisticated image presentations.

*One-half lecture.*

### **CSA108K. Workshop: Outlook Basics (.5).**

Introduction to Microsoft Outlook, an integrated software program designed to manage email, appointments, notes, and address/contact lists.

*One-half lecture.*

### **CSA108M. Workshop: Microsoft Access Basics (.5).**

Introduction to database concepts and features of Microsoft Access.

*One-half lecture.*

### **CSA108N. Workshop: Microsoft Access Intermediate (.5).**

Using features of the Microsoft Access program including validation rules and chart functions.

*One-half lecture.*

### **CSA108O. Workshop: Microsoft Access Advanced (.5).**

Using advanced features of the Microsoft Access database program including macros, SQL statements, and security features.

*One-half lecture.*

## COURSE DESCRIPTIONS

### **CSA108P. Workshop: Using Your Digital Camera (.5).**

Introduction to use of a digital camera, including methods of transferring photos, media storage options, printing and sharing photos.

*One-half lecture.*

### **CSA110. Introduction to Computer Information Systems (3).**

Computer hardware, software, and information-processing systems including analysis, development and implementation of computer systems.

*Three lecture.*

### **CSA111. Keyboarding (1).**

Presentation of the keyboard including the 10-key pad by touch. Development of correct techniques for a variety of applications including word processing, computer programming, data entry, and computer interaction.

*Three lab.*

### **CSA112. Keyboarding Skill Building (1).**

Improving keyboarding speed and accuracy. Emphasis on techniques and strategies for job-related keyboarding proficiency.

*Prerequisite: CSA 111.*

*Three lab.*

### **CSA113. Document Formatting (3).**

Basic formatting skills for document processing. Includes basic business documents, correspondence, reports, tables, and employment documents.

*Prerequisite: CSA 111.*

*Two lecture. Three lab.*

### **CSA114. Document Production (2).**

Creation and production of professional-looking business documents using advanced formatting elements. Reports, tables, electronic forms, correspondence, tables, medical/legal office applications, and office forms are the focus.

*Prerequisite: CSA 113.*

*One lecture. Three lab.*

### **CSA115. Ten-Key Mastery on the Computer (1).**

Touch system of numeric keys on ten-key pads with speed and accuracy using industry standards for data entry.

*Three lab.*

### **CSA118. Practical Problem-Solving Strategies (3).**

Fundamentals of the problem-solving process. Includes techniques to identify and define the core problem or issue, and to generate, implement and evaluate solutions.

*Three lecture.*

### **CSA 123. Microsoft Office for the Mac (3).**

Introductory concepts and techniques of Microsoft Office 2008 including Word, Excel, PowerPoint, and Entourage. Emphasis on utilizing Office software on Apple's operating system, Mac OS X, for Macintosh computers.

*Three lecture.*

### **CSA124. Creating Dynamic Forms Using Adobe LiveCycle Designer (2).**

Practical application of Adobe LiveCycle Designer and Acrobat. Emphasis on use of Designer to create attractive forms that are interactive and dynamic for distribution as .pdf documents and/or use in web pages.

*Two lecture.*

### **CSA126. Microsoft Office (3).**

Introductory concepts and techniques of Microsoft Office including Word, Excel, Access, PowerPoint, and Outlook.

*Two lecture. Three lab.*

### **CSA127. Advanced Microsoft Office (3).**

Advanced concepts of Microsoft Office (Word, Excel, Access, and PowerPoint).

*Prerequisite: CSA 126.*

*Two lecture. Three lab.*

### **CSA130. WordPerfect (1).**

Various functions and operations of WordPerfect software.

*Prerequisite: CSA 111.*

*Three lab.*

### **CSA131. Advanced WordPerfect (1).**

Advanced use of WordPerfect software on a microcomputer. Emphasis on advanced character, line, and font formatting, graphics, tables, merging and sorting.

*Prerequisite: CSA 130.*

*Three lab.*

### **CSA132. Adobe Photoshop Elements for the Home Photographer (3).**

Digital imaging for the home photographer using Adobe Photoshop Elements. Use of digital cameras, scanning software and equipment.

*Two lecture. Three lab.*

### **CSA133. Microsoft Publisher (2).**

Design and production of professional quality documents that incorporate text, graphics and illustrations. Emphasis on newsletters, brochures, flyers, logos, catalogs and forms.

*Two lecture.*

## COURSE DESCRIPTIONS

### **CSA134. Microsoft Word Desktop Publishing (2).**

Desktop Publishing using advanced Microsoft Word feature to plan, define, and incorporate desktop publishing concepts and the design and creation of business and personal documents.

*Prerequisite: CSA 140.*

*One lecture. Three lab.*

### **CSA135. PageMaker Desktop Publishing (2).**

Use PageMaker software to create specific business documents including newsletters, multiple-page reports, flyers and catalog pages.

*Prerequisite: CSA 130 or CSA 140.*

*One lecture. Three lab.*

### **CSA138. Microsoft Excel (2).**

Practical application on the basic functions of Microsoft Office Excel. Emphasis on creating worksheets for data input and analysis.

*Two lecture.*

### **CSA139. Microsoft Access (2).**

Practical application of Microsoft Access. Emphasis on relational databases and query design to summarize and analyze information.

*Two lecture.*

### **CSA140. Microsoft Word (2).**

Practical application of Microsoft Office Word. Emphasis on creating and formatting content, working with visual content and organizing documents.

*Two lecture.*

### **CSA141. Advanced Microsoft Word (1).**

Advanced theory and practical application of Microsoft Word software. Emphasis on planning, designing, and formatting formal business, web page and personal documents.

*Prerequisite: CSA 140.*

*Three lab.*

### **CSA142. Microsoft PowerPoint (2).**

Practical application of Microsoft PowerPoint. Emphasis on creating and formatting slide presentations, working with multimedia, and slide show delivery options.

*Two lecture.*

### **CSA/WEB144. Creating Web Pages Using Dreamweaver (3).**

Create website using Dreamweaver software. Emphasis on creating, publishing to the web and maintaining website.

*Three lecture.*

### **CSA149. Second Life Virtual World (3).**

Introduction to the use of the virtual 3D world of Second Life. Basic skills, inventory organization, basic building, personalization of the avatar, overall navigation and communication of the virtual environment.

*Three lecture.*

### **CSA/WEB150. HTML: Introductory Concepts and Techniques (1).**

Fundamentals of developing Web pages. HTML language and creating Web pages for course work, professional purposes, and personal use.

*One lecture.*

### **CSA/WEB151. Buying and Selling on Ebay (.5).**

How to buy and sell on eBay.

*One-half lecture.*

### **CSA152. Using Google Documents (2).**

Introduction to creating and sharing Google documents. Creation of text documents, spreadsheets, forms, and presentations. Storing, sharing, and uploading of documents.

*Two lecture.*

### **CSA161. Introduction to Computer Science (2).**

Introduction to modern computer science including programming languages, structured and object oriented design and logic tools.

*Two lecture.*

### **CSA164. C# Programming Fundamentals (3).**

Introduction to C# language. Includes Visual Studio, form applications, debugging programs, object oriented programming, and database programming.

*Prerequisite: CSA 161.*

*Three lecture.*

### **CSA165. Programming in C++ (3).**

Theory and practice in programming using the language C++. Emphasis upon syntax of the language and creating application programs.

*Prerequisite: CSA 161.*

*Two lecture. Three lab.*

### **CSA/WEB167. PHP and MySQL Programming (3).**

Principles and techniques of developing small to medium scale database applications, and creating web databases that are accessed by Web pages.

*Two lecture. Three lab.*

## COURSE DESCRIPTIONS

### **CSA168. Java Programming (3).**

An introductory course exploring programming in the Java language. Emphasis will be based upon development of control statements and object oriented program design.

*Prerequisite: CSA 161.*

*Two lecture. Three lab.*

### **CSA169. Programming in Visual Basic.NET (4).**

Object oriented programming within the Windows and WEB browser environment with emphasis on Visual Basic.NET, projects and simple Windows interfaces. Includes writing, applications, debugging programs, defining loops, and using data management techniques.

*Prerequisite: CSA 161 and CSA 172.*

*Three lecture. Three lab.*

### **CSA170. PC Architecture (3).**

Introduction to hardware components of a microcomputer. Emphasis on equipment comparisons, hardware requirements, and operating systems.

*Two lecture. Three lab.*

### **CSA172. Microsoft Windows (2).**

Personal computer operations using the Microsoft Windows operating environment. Customizing, optimizing and maintenance of desktops, folders, and documents.

*One lecture. Two lab.*

### **CSA/WEB177. Surfing the Internet (2).**

Basic to intermediate techniques of using the full features of the INTERNET and its resources. Emphasis on accessing the information of the rapidly expanding and ever changing "Information Superhighway."

*Preparedness recommendation: Basic windows skills and general computer literacy.*

*One lecture. Three lab.*

### **CSA179. Operating Systems (3).**

A survey of the operating systems used today with the purpose of preparing technicians to install and maintain operating systems.

*Three lecture.*

### **CSA184. PC Installation, Diagnostics and Repair (3).**

Practical course for owners of personal computers. Introduction to troubleshooting a computer that is malfunctioning. Emphasis on diagnosis and removal of faulty modules and installation of hardware and related software.

*Prerequisite: CSA 100.*

*Two lecture. Three lab.*

### **CSA201. Software Maintenance and Troubleshooting (3).**

Differentiating between hardware and software errors. Diagnosing and correcting software problems that are interfering with the operation of the computer.

*Prerequisite: CSA 172.*

*Two lecture. Three lab.*

### **CSA/EDU204. Computers in the Classroom (3).**

Introduces general personal computer applications, teacher utility programs, internet searching, and evaluation of educational software. Includes procedures for using various applications in the classroom and review of major software programs currently in use in schools on both the Windows and Macintosh platforms.

*Three lecture.*

### **CSA220. Microsoft Project (2).**

Fundamentals of project management using the application program Microsoft Project.

*One lecture. Three lab.*

### **CSA230. Flash Graphic Effects (2).**

Using Macromedia FlashTM software to create graphics, animations and controls to be used as tutorials, demonstrations, or web pages. Emphasis on vector graphic creation and frame animation. Application of animation theory and principles of vector and raster image use.

*One lecture. Three lab.*

### **CSA238. Advanced Excel for Windows (1).**

Advanced theory and application of the Microsoft Excel spreadsheet software application.

*Prerequisite: CSA 138.*

*Three lab.*

### **CSA265. Programming in Advanced C++ (3).**

Theory and practice in programming using the language C++. Emphasis on syntax of the language and creation of application programs using Object Oriented Programming (OOP) principles.

*Prerequisite: CSA 165.*

*Two lecture. Three lab.*

### **CSA/WEB266. Advanced Web Enhancement AJAX (3).**

Create AJAX web applications that utilize JavaScript, PHP, Document Object Model (DOM), and Extensible Markup Language (XML). Includes XHTML language, Cascading Style Sheet (CSS) and XMLHttpRequest Object.

*Prerequisite: CSA 161.*

*Two lecture. Three lab.*

## COURSE DESCRIPTIONS

### **CSA272. Advanced Windows Maintenance (2).**

Perform regular maintenance on a computer system. Use of scan disk, defrag, start-up options, recovery console, resource kit. Registry backup and backup jobs. Windows passwords, file compression and windows NTFS permissions. Updating software drivers and patches. Networking issues with Windows.

*Prerequisite: CSA 172.*

*One lecture. Three lab.*

### **CSA281. Systems Analysis and Design (3).**

Advanced analysis of users' needs, available equipment, manpower and financial feasibility. Emphasis on procedures and program analysis in design and implementation of the total system. Individual and team approach to problem solving.

*Prerequisite: CSA 110 and CSA161.*

*Three lecture.*

### **CSA282. Microcomputer Databases (3).**

Concepts, design, implementation, evaluation, and maintenance techniques of databases. Includes fundamentals of data model, data structure and data management.

*Two lecture. Three lab.*

**CSA294. CSA Project (1-6).** This Capstone course incorporates project design, project system analysis, and technology applications. Approval of Division Dean.

*Prerequisite: CSA 126 and CSA 165 and CSA 179 and CSA 281 and CSA 282.*

*One - six lecture.*

### **CSA296. Internship: Computer Systems and Applications (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **CSA299. Independent Study Computer Systems and Applications (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ CREATIVE WRITING (CRW)

### **CRW139. Introduction to Creative Writing (3).**

Techniques in writing, evaluating, and critiquing poetry, fiction and creative non-fiction.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **CRW140. Short Story Writing (3).**

Beginning techniques used in writing fiction, focusing on the short story.

*Three lecture.*

### **CRW141. Introduction to Poetry Writing (3).**

Beginning techniques used for writing poetry.

*Three lecture.*

### **CRW142. Creative Nonfiction Writing (3).**

Techniques in writing creative nonfiction, focusing on the personal essay and memoir.

*Three lecture.*

### **CRW143. Memoir Writing (3).**

Introduction to memoir writing, focusing on prewriting, analysis, evaluation, and revision of memoir.

*Three lecture.*

### **CRW144. Writing and Healing (3).**

Writing to explore and heal the relationship to one's self and the outside world; emphasis on journal writing as a source and foundation for public writing.

*Three lecture.*

### **CRW249. Topics in Creative Writing: (3).**

Analysis, writing, and revision of genre or element within fiction. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Three lecture.*

### **CRW250. Advanced Creative Writing: Poetry (3).**

Advanced techniques used for writing poetry.

*Prerequisite: CRW 139 or CRW 141.*

*Three lecture.*

### **CRW251. Advanced Creative Writing: Creative Non-Fiction (3).**

Advanced techniques in writing creative nonfiction, with emphasis on personal essay and memoir.

*Prerequisite: CRW 139 or CRW 142 or CRW 143.*

*Three lecture.*



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### COURSE DESCRIPTIONS



#### A B C D E F G H I J M N P R S T V W

#### **CRW252. Advanced Creative Writing: Fiction (3).**

Advanced techniques used in writing fiction with emphasis on the short story.

*Prerequisite: CRW 139 or CRW 140 or CRW 255.*

*Three lecture.*

#### **CRW254. Novel Writing I (3).**

Planning, structuring and beginning a novel; prewriting, writing, analysis, evaluation and revision of novel plans and excerpts.

*Three lecture.*

#### **CRW255. Novel Writing II (3).**

Principles and practices for writing the contemporary novel. Focus on writing new work, critiquing, and analysis of published and student novel excerpts.

*Prerequisite: CRW 254.*

*Three lecture.*

#### **CRW295. Writers Workshop: (3).**

Intensive study and application of effective strategies used by selected authors in various genres to promote, explore, raise questions about, or provide insight into specified themes. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Three lecture.*



#### ■ **DANCE (DAN)**

##### **DAN130. Ballet (1).**

The elements of classical ballet technique. Emphasis on movement quality and artistic expression.

*Two lab.*

##### **DAN131. Modern Dance (1).**

The elements of modern dance technique. Emphasis on movement quality and artistic expression.

*Two lab.*

##### **DAN132. Jazz Dance (1).**

The fundamentals of jazz dance techniques.

*Two lab.*

##### **DAN134. Ballroom Dance: Fox Trot, Waltz and Tango (1).**

Basic and beginning moves of the Fox Trot, Waltz and Tango. Includes movement, music and rhythm.

*Two lab.*

##### **DAN136. Ballroom Dance: Rumba, Cha Cha and Swing (1).**

Basic and beginning moves of the Rumba, Cha Cha and Swing. Includes movement, music and rhythm.

*Two lab.*

##### **DAN140. Dance Choreography (1).**

Introduction to various choreography and dance themes. Includes kinesthetic awareness, floor exercises, dance movements, and music integration.

*Two lab.*

##### **DAN198. Dance Topics: (1).**

Exploration of partner dance styles.

*One lecture.*

##### **DAN 233. Intermediate Ballroom Dance (1).**

Intermediate ballroom dance including: American Style Waltz, Foxtrot, Tango, Swing, Rumba and Cha-cha.

*Prerequisite: DAN 134 and DAN 136.*

*Two lab.*

## COURSE DESCRIPTIONS

### ■ DIGITAL FILMMAKING (DFM)

#### **DFM101. Film Analysis: (2).**

Analytical sequence of various disparate film types. Includes story and structure analysis, artistic design, and character development. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*One lecture. Three lab.*

#### **DFM102. Image and Sound: (3).**

Analysis and creation of visual and auditory experiences. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Two lecture. Three lab.*

#### **DFM103. Storytelling: (2).**

Contemporary and mythical story patterns. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*One lecture. Three lab.*

#### **DFM104. Screenwriting: (2).**

Professional feature length screenwriting for narrative and documentary films. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*One lecture. Three lab.*

#### **DFM105. Directing Actors (1).**

Professional directing techniques.

*Three lab.*

#### **DFM106. Camera Coverage: (1).**

Professional cinematography processes from script to film. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*Three lab.*

#### **DFM107. Editing: (2).**

Feature film editing from analysis to final cut. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*One lecture. Three lab.*

#### **DFM108. Guerilla Filmmaking: (1).**

Producing low-budget professional independent films. License and rights administrator. Distribution executive. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*One lecture.*

#### **DFM109. Managing Post-Production: (1).**

Professional post-production issues and responsibilities. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*One lecture.*

#### **DFM110. Thesis Film Pre-Production: (2).**

Pre-production of thesis film. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*One lecture. Three lab.*

#### **DFM111. Interview Techniques (1).**

Introduction to interviewing techniques. Professional use of lights, sound and camera for interviews. Questioning to elicit a useful response.

*Prerequisite: Prospective students must apply to be accepted in the Zaki Gordon Institute for Independent Filmmaking documentary program by submitting a competitive 1000 word essay and successfully completing a personal interview.*

*Three lab.*

#### **DFM201. Thesis Film Production: (6).**

Production and post-production of a 15-minute digital film. Repeatable for a total of 12 credit hours towards degree/certificate requirements.

*Two lecture. Nine lab.*

#### **DFM202. Feature Pre-Production (5).**

Preparation of schedules and materials for \$50,000+ feature film production.

*Fifteen lab.*

#### **DFM203. Feature Film Directing (2).**

Work with actors to achieve desired camera presence. Emphasis on actor relationships, camera placement, script breakdown and performance.

*Two lecture.*

#### **DFM204. Feature Film Screenwriting: (5).**

Complete second draft of feature length script. Repeatable for a total of 10 credit hours towards degree/certificate requirements.

*Two lecture. Nine lab.*

#### **DFM205. Visual Effects for Filmmaking (4).**

Various software and photographic techniques to create the effects of visual illusion in filmmaking.

*Three lecture. Three lab.*

#### **DFM206. Advanced Cinematography (2).**

Single and multi camera lighting techniques. Emphasis on selecting visual style for a script and visual storytelling.

*One lecture. Three lab.*

#### **DFM207. Feature Sound Design (3).**

Listening, designing, recording and mixing a film's audible experience to create a full film-going experience.

*Two lecture. Three lab.*

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### COURSE DESCRIPTIONS



A B C D E F G H I J M N P R S T V W

#### **DFM208. Feature Film Business Plan (4).**

Design and write a business plan for a feature film.

*Three lecture. Three lab.*

#### **DFM209. Feature Film Legal Issues (3).**

Contractual agreements between filmmaker, Unions, Guilds, vendors and investors.

*Two lecture. Three lab.*

#### **DFM210. Feature Production Design (2).**

Conceptualize and implement a visual style for a film.

*Two lecture.*

#### **DFM211. Feature Film Production (4).**

Production of a 35mm or high definition short film.

*Two lecture. Six lab.*

#### **DFM212. Feature Post Production (3).**

Edit and manage the post-production process of a film that meets distribution standard for theatrical release.

*Two lecture. Three lab.*

#### **DFM213. Feature Post Sound Design (3).**

Edit and manage the post sound that meets distribution standard for theatrical release.

*One lecture. Six lab.*

#### **DFM214. Post Visual Effects (3).**

Visual effects techniques on 35mm or high definition film.

*One lecture. Six lab.*

#### **DFM215. Feature Distribution and Marketing (3).**

Target and effectively market a feature film to a desired audience.

*Two lecture. Three lab.*

#### **DFM295. Master Workshops (1-6).**

Workshops in digital film production processes and techniques. Analysis of successful and unsuccessful production methods. Professional relationships and networking.

#### **DFM296. Internship: Digital Filmmaking (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

#### **DFM299. Independent Study Digital Filmmaking (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

### ■ **EARLY CHILDHOOD EDUCATION (ECE)**

#### **ECE120. Contemporary Issues in Child Care (1).**

Exploration of the cultural, economic, historical, political and social issues in contemporary child care programs. Emphasis on critically examining current trends and their effects upon members of society.

*One lecture.*

#### **ECE190. Child Development Associate (CDA) Assessment Preparation (3).**

Preparation for CDA assessment. Development of a professional resource file that includes parent questionnaires, autobiography and essays. Successful completion of course qualifies student to apply for national certification.

*Prerequisite: ECE 200 and ECE/PSY 234 and ECE 240.*

*Three lecture.*

#### **ECE195. Head Start Mandates and Performance Standards (1).**

Head Start mandates and performance standards for program administration and classroom implementation. Emphasizes strategies for working with children (infants, toddlers and preschoolers), legal issues, health and safety standards, nutrition and working with families.

*One lecture.*

## COURSE DESCRIPTIONS

### **ECE200. Introduction to Early Childhood Education (3).**

Introduction to the field of Early Childhood Education including history, philosophy, and the application of child development techniques. Includes techniques for observing and recording behaviors, communication and guidance skills, developmentally appropriate practices and the role of the teacher in early childhood settings. Observation and participation hours in an early childhood setting required.

*Three lecture.*

### **ECE201. Introduction to the Child Care Profession (3).**

Introduction to the child care profession, focusing on child development and appropriate learning environments for children birth through age five. Includes child care licensing and developmentally appropriate curriculum in early childhood settings.

*Three lecture.*

### **ECE202. Early Childhood Curriculum (3).**

Introduction to methods and materials to assist young children in the learning process. Emphasis on art, music and movement, math, science, social studies, dramatic play, technology, sensory activities and transitions, all within the context of creativity. Locating, planning, implementing and evaluating developmentally appropriate learning activities using a variety of methods and materials.

*Three lecture.*

### **ECE210. Infant and Toddler Development (3).**

Principles of development in children from birth through 36 months. Emphasis on individuality of child and the adult role in providing a safe and stimulating environment for the development of the young child. Observation and participation hours in infant/toddler setting required.

*Prerequisite: ECE 200 and ECE/PSY 234. [Reading Proficiency.](#)*

*Three lecture.*

### **ECE216. Play Education (3).**

Development of play in children birth through age eight. Includes methods to enhance learning experiences through play, role of play in a child's development, and developmentally appropriate play activities.

*Prerequisite: ECE 200 and ECE 202.*

*Three lecture.*

### **ECE220. School Age Children (3).**

Development of children ages 6-12 who may be in child care or groups. Interests, attitudes, abilities, behavior and guidance of children with an emphasis on types of programs, literacy development and tutoring techniques for this age group. Observation and participation hours required.

*Three lecture.*

### **ECE/EDU222. Introduction to the Exceptional Learner (3).**

Introduction to educating children with special needs or abilities including students with physical, mental, or emotional disabilities and students who are gifted or talented. Emphasis on current educational practices and related educational theories, including identification, causes, and characteristics of exceptional learners. Overview of history, assessment, intervention, curriculum implications, and research issues in special education. Observation and participation hours in a special education setting required.

*Three lecture.*

### **ECE/EDU230. Language and Literacy Experiences (3).**

Language and literacy processes and the way in which literature enriches a child's development. Review of children's literature and methods of enhancing literacy experiences.

*Three lecture.*

### **ECE/PSY234. Child Growth and Development (3).**

Development of the child. Includes genetic, prenatal, birth and postnatal influences. Emphasis on physical, cognitive and social-emotional development and theories. Includes positive communication with children.

*Prerequisite: [Reading Proficiency.](#)*

*Three lecture.*

### **ECE240. Family and Community Partnerships (3).**

School and family relationships with a focus on communication, ethics, professionalism and problem-solving. Impact of the community and its resources and referral systems. Emphasis on families, diversity, multicultural issues and parent involvement.

*Three lecture.*

### **ECE250. Leadership and Management in Early Childhood Programs (3).**

Overview of responsibilities and tasks involved in managing a quality early childhood program. Includes administrative duties related to licensing, enrollment, funding, policies, facility, equipment, parent relationships and staffing. Emphasis on effective leadership, evaluation and planning, shared vision and a professional climate of collaboration.

*Prerequisite: ECE 200 and ECE 202 and ECE/PSY 234.*

*Three lecture.*

### **ECE270. Health, Safety and Nutrition (3).**

Nutrition education, menu planning, childhood diseases and illness, and sanitation and safety in group settings. Protecting the health and safety of young children and promoting the development of lifelong health habits. Communication with health professionals and parents on health, safety, and nutrition issues.

*Three lecture.*

## COURSE DESCRIPTIONS

### **ECE290. Practicum: Directed Field Experience Birth-Preschool. (3).**

Supervised experience in the education, guidance, and care of young children. Begins with opportunity to observe appropriate curriculum, then to plan and implement age-appropriate activities under careful supervision. Application required. Students must show evidence of successful completion of first aid, CPR and proof of fingerprint clearance application process when applying for placement in ECE290.

*Prerequisite: ECE 200 and ECE 202 and ECE/EDU 222 and ECE/EDU 230 and ECE/PSY 234 and ECE 270.*

*One lecture. Six lab.*

**ECE291. Advanced Practicum: Supervised Field Experience Birth-Preschool (4).** Supervised student-teaching in a birth-preschool setting. Includes application of knowledge and skills in planning and implementing curriculum under the supervision of a classroom teacher and college supervisor. Must complete application process prior to registration.

*One lecture. Nine lab.*

### **ECE295. Special Topics: Early Childhood Education (1).**

Introduction to special topics in Early Childhood Education.

Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*One lecture.*

### **ECE296. Internship: Early Childhood Education (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **ECE299. Independent Study Early Childhood Education (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ EDUCATION (EDU)

### **EDU110. Introduction to Substitute Teaching (1).**

Role of the substitute teacher in public and private schools from kindergarten through high school. Emphasis on teaching techniques, classroom management, educational issues, policies, procedures.

*One lecture.*

### **EDU/SPA120. Spanish for Educators (3).**

Conversational Spanish for the student who needs a practical speaking and writing knowledge of common terminology used in the school setting.

*Three lecture.*

### **EDU150A. Syllabus Creation and Writing (.25).**

Syllabus development and writing. Use of web-based resources and college templates, checklists, and required institutional elements to create a course syllabus. Develop and write a comprehensive student work guide or assignment schedule in various formats.

*One-quarter lecture.*

### **EDU150B. Teaching and Learning Styles (.25).**

Instructional design to enhance classroom experiences for all students. Identify student learning styles and present information to improve student learning. Includes class diversity, creating a managed, supportive learning community in the classroom, and integrating technology in instruction.

*One-quarter lecture.*

### **EDU150C. Student Learning and Outcomes Assessment (.25).**

Learning concepts, outcomes and assessment. Rubrics and techniques to assess student learning.

*One-quarter lecture.*

### **EDU150D. Legal Issues (.25).**

Legal issues and their impact on students, instruction, and the college as a whole. Includes copyright, harassment and ethics, Family Educational Rights Privacy Act (FERPA - Privacy), and Americans with Disabilities Act (ADA).

*One-quarter lecture.*

### **EDU200. Introduction to Education (3).**

Overview of education profession and U.S. educational system. historical development and foundations of education and educational institutions. Includes theories of teaching, the student as learner, current issues and trends in education, the school and community, and roles and responsibilities of the teacher. Includes a field and observation practicum.

*Prerequisite: ENG 101 or ENG 103.*

*Three lecture.*

### **EDU/CSA204. Computers in the Classroom (3).**

Introduces general personal computer applications, teacher utility programs, internet searching, and evaluation of educational software. Includes procedures for using various applications in the classroom and review of major software programs currently in use in schools on both the Windows and Macintosh platforms.

*Three lecture.*



## COURSE DESCRIPTIONS

### **EDU210. Cultural Diversity in Education (3).**

Prepares potential teachers to examine how race, ethnicity, and cultural differences influence students' experiences in school. Assists teachers in implementing a multicultural approach to teaching by identifying effective teaching styles and practices for a diverse student population.

*Three lecture.*

### **EDU/ECE222. Introduction to the Exceptional Learner (3).**

Introduction to educating children with special needs or abilities including students with physical, mental, or emotional disabilities and students who are gifted or talented. Emphasis on current educational practices and related educational theories, including identification, causes, and characteristics of exceptional learners. Overview of history, assessment, intervention, curriculum implications, and research issues in special education. Observation and participation hours in a special education setting required.

*Three lecture.*

### **EDU/ECE230. Language and Literacy Experiences (3).**

Language and literacy processes and the way in which literature enriches a child's development. Review of children's literature and methods of enhancing literacy experiences.

*Three lecture.*

### **EDU239. Structured English Immersion Provisional Endorsement (3).**

Prepares certified teachers and administrators who were trained in states other than Arizona or were certified after August 2006 to meet the academic needs of English Language Learner populations and qualifies them for the Provisional SEI Endorsement as required by the Arizona Department of Education.

*Three lecture.*

### **EDU240. Provisional Structured English Immersion Endorsement (1).**

Provide classroom teachers, principals, supervisors, and superintendents with the Provisional SEI endorsement as defined by the Arizona Department of Education. Emphasis on meeting the academic needs of English Language Learner populations.

*One lecture.*

### **EDU241. Full Structured English Immersion Endorsement (3).**

Structured English Immersion (SEI). Theory, methods, and strategies as defined by the Arizona Department of Education. Along with EDU240 meets requirements for the SEI full endorsement.

*Three lecture.*

### **EDU250. The Community College (3).**

Overview of the community college in the United States including its development, mission and role. Comparison of the community college system in Arizona with selected community college systems of other states.

*Three lecture.*

### **EDU255. Fundamentals of Educational Technology (3).**

Designed for educators in diverse settings (e.g. public and private sectors, pre-K to grade 12, and higher education). Emphasis on systematic processes for designing, developing, evaluating and implementing technology effectively into instruction and the impact emerging technologies have on the educational environment. Aligned with International Society for Technology in Education, National Educational Technology Standards for Teachers (NETS-T).

*Three lecture.*

### **EDU296. Internship: Education (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **EDU299. Independent Study Education (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.



## COURSE DESCRIPTIONS

### ■ ELECTRICAL TECHNOLOGY (ELT)

#### **ELT110. Electricity and Electronics (3).**

Basic concepts and properties of electricity, its general applications and related terminology. Introduction to reading electrical blueprints and wiring diagrams, and defines additional electronics concepts and components. Includes semiconductors, power supplies, amplifiers, rectifiers, and oscillators.

*One lecture. Four lab.*

#### **ELT111. DC Electrical Systems (3).**

Operation and maintenance of direct-current systems and controls, electrical measuring instruments, electrical safety, short-circuit analysis and troubleshooting.

*One lecture. Four lab.*

#### **ELT112. AC Electrical Systems (3).**

Operation and maintenance of alternating-direct-current systems and controls, single-phase motors, three-phase systems, energy conservation, short-circuit analysis and troubleshooting.

*One lecture. Four lab.*

#### **ELT115. Conduits and Raceways (1).**

Layout, bending and assembly of conduit systems.

*One-half lecture. One lab.*

#### **ELT126. Solid State Devices (3).**

Characteristics and operation of solid state devices including diodes, thyristors, bipolar and field effect transistors. Includes power supplies, diode circuits, transistor biasing and operation, triacs, and silicon-controlled rectifiers.

*Prerequisite: ELT 111 and ELT 112.*

*Two lecture. Two lab.*

#### **ELT161. Microprocessors and Programmable Controllers (3).**

Microprocessor, microcontroller, and programmable logic controller (PLC) architecture and programming. Topics include memory, instruction sets, addressing modes, interfacing, ladder logic, and troubleshooting.

*Two lecture. Two lab.*

#### **ELT171. Process Control Instrumentation (3).**

Instrumentation associated with industrial process control, including measurements of pressure, force, weight, motion, flow, level, and temperature; analytical measurement and procedures for safety, calibration and testing.

*One lecture. Four lab.*

#### **ELT183. Digital Circuits (3).**

Introduction to logic circuits used in computers and other digital equipment. Includes number systems, logic gates, combinatorial logic, simplification techniques, encoders, decoders, flip-flops, counters, registers, memory, and digital-to-analog and analog-to-digital converters.

*Two lecture. Two lab.*

#### **ELT258. Electronic Troubleshooting (2).**

Problem solving techniques and methodology using foundational concepts of DC, AC, solid state devices and digital circuits. Emphasis on troubleshooting utilizing analog and digital test equipment to identify faults in a variety of non-functional circuits and equipment.

*Prerequisite: ELT 126 and ELT 183.*

*Four lab.*

#### **ELT271. Advanced Process Control Instrumentation (4).**

Advanced process control systems including: single-loop, multi-loop, cascade, ratio, feedforward and Distributed Control Systems (DCS). Calibrate, adjust, tune, test and maintain various control systems.

*Prerequisite: ELT 171.*

*Three lecture. Three lab.*

#### **ELT272. Motors and Motor Controls (3).**

Characteristics, performance and control of rotating electrical machinery, transformers and associated equipment.

*Prerequisite: ELT 111 and ELT 112.*

*Two lecture. Three lab.*

#### **ELT295. Apprenticeship: Electrical Instrumentation (3).**

Supervised field experience. Repeatable for a total of twelve credit hours towards degree/certificate requirements.

#### **ELT296. Internship: Electrical Technician (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

## COURSE DESCRIPTIONS

### ■ EMERGENCY MEDICAL SERVICES (EMS)

#### **EMS120. Basic First Aid (.5).**

First Aid for victims of all ages. Includes: Basic recognition and care of the Medical and Trauma patients. Awareness of environmental emergencies including bites, stings, and exposure to hot and cold. Meets the requirements of Heartsaver First Aid by the American Heart Association.

*One-half lecture.*

#### **EMS121. Pediatric First Aid, CPR and Automated External Defibrillator (AED) (.5).**

Pediatric first aid, cardiopulmonary resuscitation (CPR) and automated external defibrillator (AED) use. Recognize injury and medical emergencies and their treatment in the first few minutes until professional help arrives. Meets the requirements of the Heartsaver Pediatric AED/First Aid by the American Heart Association.

*One-half lecture.*

#### **EMS123. Cardiopulmonary Resuscitation (CPR) for the Health Care Provider (.5).**

CPR for victims of all ages. Includes ventilation with a barrier device, a bag-valve-mask device and oxygen, and use of an automated external defibrillator (AED). Meets the requirements of Healthcare Provider CPR & AED by the American Heart Association.

*One-half lecture.*

#### **EMS126. Wilderness First Responder (3).**

Principles and skills to make critical medical and evacuation decisions and take appropriate action in remote locations where advanced medical assistance is more than one hour away.

*Prerequisite: EMS 123.*

*Three lecture.*

#### **EMS130. Emergency Medical Responder (2).**

Knowledge and skills for assisting ill or injured in home, industry or highway emergencies. Fundamentals of life support and emergency medical care while awaiting arrival of advanced emergency medical personnel. Certificate of completion.

*Prerequisite: EMS 123 or proof of a current (1 year or less) "C" class CPR certification through the American Heart Association or the American Red Cross.*

*One lecture. Two lab.*

#### **EMS131. Emergency Medical Technician Basic (6).**

Principles and techniques of emergency medical care as performed by the EMT Basic in accordance with national and state curriculum. Preparation for the National Registry of EMT Certification Examination.

*Prerequisite: EMS 123 or proof of a current (one year or less) "C" class CPR certification by the American Heart Association, Professional Rescuer CPR by the American Red Cross or CPR Pro for the Professional Rescuer by the American Safety & Health Institute. Reading placement test with a 9th grade reading level is required. Must be 17.5 years of age at the start of class. Must produce a vaccine record for Measles, Mumps, and Rubella. Must produce a negative TB test (less than six months old) or negative chest x-ray. Five lecture. Three lab.*

#### **EMS140. Pre-Hospital Trauma Life Support (1).**

Management of traumatically injured individuals including sequence of assessment and techniques of resuscitation, stabilization and transport. Organized approach to trauma care for EMTs and nurses who evaluate and stabilize the trauma victim. Stresses conditions which cannot be stabilized in pre-hospital environment and require immediate transport.

*Prerequisite: EMS 131.*

*One lecture.*

#### **EMS211. Emergency Medical Technician Refresher (2).**

Updates Basic EMT graduates on new techniques and reviews principles in client care, basic life support and transportation of sick and injured. Emphasizes practical usage and experience in all phases.

*Prerequisite: EMS 131 or equivalency. Meets Arizona Department of Health Services refresher training requirements. EMS 123 or proof of a current (one year or less) "C" class CPR certification by the American Heart Association or the American Red Cross.*

*Two lecture.*

#### **EMS220. Interpretation and Management of Cardiac Dysrhythmias (3).**

Concepts of anatomy and physiology of cardiac tissues and electrical conduction. ECG patterns, diseases and cardiac response to medications. Preparation for Advanced Cardiac Life Support (ACLS) certification course.

*Prerequisite: A current EMT, IEMT, or Paramedic certificate, or RN with current license, or NSG 131. Must have proof of current healthcare provider CPR certification through the American Heart Association.*

*Three lecture.*



## COURSE DESCRIPTIONS

### **EMS 230. Pharmacology for the Pre-hospital Provider (3).**

Concepts of pre-hospital pharmacology including administration of medications and fluids. Treatment for shock states, cardiac, respiratory, altered levels of consciousness, pain management and obstetric emergencies.

*Prerequisite: EMS 131 or current EMT, I-EMT, Paramedic certification or RN with current license.*

*Three lecture.*

### **EMS233. Intermediate Emergency Medical Technician (18).**

Advanced assessment, medication administration, intubation techniques and IV insertions. Emphasis on human anatomy and physiology, pharmacology, dysrhythmia interpretation, trauma and medical treatments. Pathophysiology related to the management of cardiovascular, respiratory, endocrines, neurological, reproductive, musculoskeletal, obstetric and pediatric emergencies.

*Prerequisite: Current EMT certificate issued by ADHS that must remain current until graduation, a current Healthcare Provider or equivalent level CPR card. Must pass a written test, practical exam, have an interview and be approved by the selection committee and medical director.*

*Twelve lecture. Eighteen lab.*

### **EMS240. Paramedic Anatomy and Physiology (4).**

Human anatomy and physiology. An overview of the body's organs and tissue function.

*Prerequisite: EMS 131 and FSC 104 and Program Admission.*

*Four lecture.*

### **EMS241. Paramedicine I (12).**

Introduction to Paramedicine including overview of rules and regulations, paramedic attributes, pharmacology, medication administration, airway, ventilation, patient assessment and trauma.

*Prerequisite: EMS 240.*

*Ten lecture. Six lab.*

### **EMS242. Paramedicine II (10).**

Introduction to Paramedicine including extensive overview of the National Highway Safety and Traffic Administration's modules in Medical and Special Considerations.

*Prerequisite: EMS 241.*

*Nine lecture. Three lab.*

### **EMS243. Paramedicine III (5).**

Introduction to Paramedicine including extensive overview of the National Highway Safety and Traffic Administration's modules in Assessment Based Management Operations.

*Prerequisite: EMS 241.*

*Three lecture. Six lab.*

### **EMS244. Paramedicine IV (12).**

Clinical and vehicular practicum. Extensive hands on application including emergency patient care of sick and injured under direct supervision of an authorized preceptor.

*Prerequisite: EMS 240.*

*Thirty Six lab.*

### **EMS255. Paramedic Refresher (3).**

Review of advanced skills applied by certified emergency paramedics. Study of the anatomy, physiology, pathophysiology, and management of medical, obstetrical, pediatric emergencies, neurological injuries and specific chronic diseases related to the central nervous system, behavioral emergencies, respiratory emergencies, and shock.

*Three lecture.*

### **EMS296. Internship: Emergency Medical Services (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **EMS299. Independent Study Emergency Medical Services (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ ENGLISH (ENG)

### **ENG021. Vocabulary Development Module (1).**

Increasing personal vocabulary with emphasis on using dictionary features, word parts, and context clues to understand and learn word meanings.

*Prerequisite: Satisfactory score on the skills assessment.*

*Three lab.*

### **ENG022. Spelling Improvement Module (1).**

Overcoming spelling difficulties. Emphasis on general rules and strategies and commonly confused and misspelled words.

*Prerequisite: Satisfactory score on the skills assessment.*

*Three lab.*

## COURSE DESCRIPTIONS

### **ENG023. Basic Sentence Structure and Grammar Module (1).**

English grammar and sentence structure. Recognizing sentence grammar that affects communication and constructing sentences.

*Prerequisite: Satisfactory score on the skills assessment.*

*Three lab.*

### **ENG026. Punctuation Skills Module (1).**

Standard use of punctuation.

*Prerequisite: Satisfactory score on the skills assessment.*

*Three lab.*

### **ENG032. English for Speakers of Other Languages: Beginning English I, II and III (3).**

Development of the fundamentals of speaking, writing, listening, and reading of English for speakers of other languages at the novice low/novice mid level. Introduction to the culture of the English speaking world.

*Three lecture.*

### **ENG032A. English for Speakers of Other Languages: Beginning English I (1).**

Introduction to the fundamentals of speaking, writing listening, and reading of English for speakers of other languages. Introduction to the culture of the English speaking world.

*One lecture.*

### **ENG032B. English for Speakers of Other Languages: Beginning English II (1).**

Development of the fundamentals of speaking, writing, listening, and reading of English for speakers of other languages at the novice low level. Introduction to the culture of the English speaking world.

*Prerequisite: ENG 032A.*

*One lecture.*

### **ENG032C. English for Speakers of Other Languages: Beginning English III (1).**

Development of the fundamentals of speaking, writing, listening, and reading of English for speakers of other languages at the novice low/novice mid level. Introduction to the culture of the English speaking world.

*Prerequisite: ENG 032B.*

*One lecture.*

### **ENG035. English as a Second Language: Conversational English and American Culture (1).**

Introduction to English pronunciation, grammar and usage. Emphasis on basic conversational skill and understanding American culture. Field trips required.

*One lecture.*

### **ENG042. English for Speakers of Other Languages: Intermediate English I, II and III (3).**

Development of speaking, writing, listening, and reading proficiency in English at the novice mid/novice high level. Culture of the English-speaking world.

*Prerequisite: ENG 032 or ENG 032C.*

*Three lecture.*

### **ENG042A. English for Speakers of Other Languages: Intermediate English I (1).**

Development of speaking, writing, listening, and reading proficiency in English at the novice mid level. Culture of the English-speaking world.

*Prerequisite: ENG 032 or ENG 032C.*

*One lecture.*

### **ENG042B. English for Speakers of Other Languages: Intermediate English II (1).**

Development of speaking, writing, listening, and reading proficiency in English at the novice mid/novice high level. Culture of the English-speaking world.

*Prerequisite: ENG 042A.*

*One lecture.*

### **ENG042C. English for Speakers of Other Languages: Intermediate English III (1).**

Development of speaking, writing, listening, and reading proficiency in English at the novice high level. Culture of the English-speaking world.

*Prerequisite: ENG 042B.*

*One lecture.*

### **ENG045. English for Speakers of Other Languages: Beginning Reading and Writing (2).**

Introduction to basic skills in reading and writing the English language.

*Two lecture.*

### **ENG060. Writing Fundamentals I (3).**

Sentence and paragraph construction.

*Prerequisite: Satisfactory score on the skills assessment.*

*Three lecture.*

### **ENG061. Writing Fundamentals II (3).**

Building writing skills, sentences, paragraphs, multi-paragraph writing, introductory research strategies.

*Prerequisite: ENG 060 or satisfactory score on the skills assessment.*

*Three lecture.*



## COURSE DESCRIPTIONS

### **ENG063. Paragraph Construction Module (1).**

Composing basic expository paragraphs.

*Prerequisite: Satisfactory score on the skills assessment.*

*Three lab.*

### **ENG064. Writing Skill-Building Module (1).**

Basics of essay writing, including selecting a topic, developing a thesis, organizing paragraphs and ideas, drafting, revising, and editing.

*Prerequisite: Satisfactory score on the skills assessment.*

*One lecture.*

### **ENG065. Advanced Writing Module (1).**

Refining writing skills. Emphasis on writing to communicate clearly and correctly.

*Prerequisite: Satisfactory score on the skills assessment.*

*Three lab.*

### **ENG070. Reading Basics Module (1).**

Instruction and practice in basic knowledge and skills needed for reading.

*Prerequisite: Satisfactory score on the skills assessment.*

*One lecture.*

### **ENG071. Reading Skill Building Module (1).**

Instruction and practice in building reading skills. Focus on using basic skills to build vocabulary and increase reading rate and comprehension.

*Prerequisite: Satisfactory score on the skills assessment.*

*One lecture.*

### **ENG072. Advanced Reading Module (.5).**

Instruction and practice in advanced reading skills, including making inferences, predicting outcomes, and reading critically.

*Prerequisite: Satisfactory score on the skills assessment.*

*One-half lecture.*

### **ENG078. Speeding Your Reading Module (.5).**

Instruction and practice in increasing reading rate. Introduction of previewing, skimming, and scanning strategies. Emphasis on increasing reading rate while maintaining good comprehension. Practice in vocabulary and word recognition.

*Prerequisite: Satisfactory score on the skills assessment.*

*One and one-half lab.*

### **ENG082. Read Faster/Understand More I (3).**

Basic reading skills with emphasis on building vocabulary, using word identification strategies, increasing reading rate, and improving comprehension of meaning.

*Prerequisite: Satisfactory score on the reading skills assessment.*

*Three lecture.*

### **ENG083. Read Faster/Understand More II (3).**

Evaluation, extension, and mastery of intermediate reading skills with primary emphasis on developing vocabulary, reading efficiently, recognizing organizational patterns, identifying main ideas and details, and using critical reading strategies.

*Prerequisite: ENG 082 or satisfactory score on the reading skills assessment.*

*Three lecture.*

### **ENG100. Introductory Composition (3).**

Introduction to basic writing and reading skills required for success in college.

*Prerequisite: ENG 061 or satisfactory score on the skills assessment.*

*Three lecture.*

### **ENG101. College Composition I (3).**

Composing expository and argumentative essays for specific audiences. Emphasis on the processes of writing, reading and critical thinking. Introduction to research and documentation.

*Prerequisite: Satisfactory score on the English skills assessment or a grade of "C" or better in ENG 100. [Reading Proficiency](#).*

*Three lecture.*

### **ENG102. College Composition II (3).**

Extensive critical reading and writing about texts, including literature. Emphasis on fluency in critical writing. Includes research skills and writing a critical, documented essay.

*Prerequisite: ENG 101 or ENG 103. [Reading Proficiency](#).*

*Three lecture.*

### **ENG103. College Composition I - Honors (3).**

Composing expository and argumentative essays for specific audiences. Emphasis on the processes of writing, reading, and critical thinking. Advanced English 101 content and learning activities. Introduction to research and documentation.

*Prerequisite: Placement by English skills assessment.*

*[Reading Proficiency](#).*

*Three lecture.*

### **ENG104. College Composition II - Honors (3).**

Extensive critical reading and writing about texts, including literature. Emphasis on fluency in critical writing. Advanced English 102 content and learning activities. Includes research skills and writing a critical, documented essay.

*Prerequisite: ENG 103 or ENG 101 and placement by English skills assessment. [Reading Proficiency](#).*

*Three lecture.*

### **ENG118. Living Through Literature (2).**

Literature and film as a means to self examination and personal growth. Emphasis on the use of literature and film to analyze personal experience and to develop values.

*Two lecture.*

## COURSE DESCRIPTIONS

### **ENG136. Technical Writing (3).**

Practical writing for the world of work, from business correspondence to technical reports.

*Prerequisite: ENG 100 or COM 135 or a minimum score of 80 on the skills assessment. Reading Proficiency.*

*Three lecture.*

### **ENG140. Academic Reading and Critical Thinking (3).**

Develop academic reading and critical thinking strategies. Focus on improving reading comprehension, information literacy, and vocabulary.

*Prerequisite: ENG 061 or ENG 100 or ENG 101 or ENG 103 or ENG 136 or a satisfactory score on the writing skills assessment. Reading Proficiency. .*

*Three lecture.*

### **ENG200. College Composition III (3).**

Extensive practice in academic writing. Emphasis on research methods and documentation conventions.

*Prerequisite: ENG 102. Reading Proficiency.*

*Three lecture.*

### **ENG211. Major Issues in British Literature I (3).**

Exploration of major artistic, historical, cultural, philosophical, gender, and genre issues represented in selected works from Medieval, Renaissance, 17th and 18th century British literature.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **ENG212. Major Issues in British Literature II (3).**

Exploration of major artistic, historical, cultural, philosophical, gender, and genre issues represented in selected works of British literature from the Romantics to the present.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **ENG216. Major Issues in Ancient Literature (3).**

Investigation of major artistic, historical, cultural, and philosophical issues represented in selected works from Greek, Roman, and Hebrew literature.

*Prerequisite: ENG 101 or ENG 103.*

*Three lecture.*

### **ENG217. Major Issues in World Literature (3).**

Investigation of major artistic, historical, ethnic, race, gender and philosophical issues in representative works of great literature.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **ENG219. Major Issues in Modern Drama (3).**

Investigation of important works of world drama from 1870 to the present. Approaches that include reading and production awareness. Critical analysis of cultural, social, and political issues that have shaped and been shaped by modern plays.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **ENG236. Advanced Technical Writing (3).**

Management-level problems in business and technical communications. Includes internal communications and public relations.

*Prerequisite: ENG 136.*

*Three lecture.*

### **ENG237. Women in Literature (3).**

Survey of women in literature from ancient Greece to present with emphasis on images of female protagonists as portrayed by male and female authors.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **ENG238. Literature of the Southwest (3).**

A study, through literature, of the land and peoples of the American Southwest, with emphasis on the influence and interaction of Native American, Spanish-Mexican and Anglo cultures.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **ENG239. Images of the Southwest (3).**

Studies of varying individual and cultural images of the Southwest. Emphasis on literature, but including other disciplines as appropriate. Each section of Images focuses on a special topic: a writer or group of writers, a theme, an issue, or a specific locale.

*Three lecture.*

### **ENG240. American Literature to 1865 (3).**

Exploration of major artistic, historical, philosophical, cultural and gender issues represented in selected works from the Colonial era to the Civil War.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **ENG241. American Literature 1865 to Present (3).**

Exploration of major artistic, historical, philosophical, cultural and gender issues represented in selected works from the Civil War to the present.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

## COURSE DESCRIPTIONS

### **ENG242. Introduction to Shakespeare (3).**

An examination, through close reading, critical analysis and research, of six to eight Shakespearean plays, selected sonnets and poems as well as an investigation into the cultural and historical settings from which his work emerged.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **ENG260. Literature and Film (3).**

Examination of storytelling in both literature and film. Study how prose is translated into visual images. Critical work on the language/methods of literature and film. Study of avant garde art and how it has influenced both literature and film. Brief history of literature and film.

*Three lecture.*

### **ENG265. Studies in Film and Literature: (3).**

Focus on a different special topic or cinematic genre. Emphasis on the history and evolution of the genre as well as the critical analysis of representative films. Examination of the relationships between films and their literary counterparts.

*Three lecture.*

### **ENG296. Internship: English (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **ENG298. Special Topics in Literature (3).**

Investigation of major artistic, historical and philosophical issues in representative works of literature within topic or genre.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **ENG299. Independent Study English (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ ENVIRONMENTAL STUDIES (ENV)

### **ENV/BIO105. Environmental Biology (4).**

Introduction to ecological systems, natural resources, and applications to environmental issues. Includes population, community, and ecosystem analysis. Emphasis on field, laboratory, and writing activities.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

### **ENV/GLG110. Environmental Geology (4).**

Introduction to geologic studies and their application to environmental problems, causes and possible solutions. Includes geologic processes, geohazards, and geologic natural resources.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

### **ENV/CHM121. Environmental Chemistry (4).**

Atomic structure, the Periodic Table, chemical bonding and reactions with emphasis on environmental applications: the atmosphere and air pollution, water and water pollution, pesticides, food additives, and nuclear wastes.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

### **ENV296. Internship: Environmental Studies (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **ENV299. Independent Study Environmental Studies (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.



# 2010/11

## Yavapai College CATALOG

### COURSE DESCRIPTIONS



**A B C D E F G H I J M N P R S T V W**

#### ■ FIRE SCIENCE (FSC)

##### **FSC100. Fire Service Introduction and Orientation (3).**

Introduction to fire service, history and evaluation of fire department organization. Role of fire service in community. Includes departmental functions, management, techniques of firefighting, laws and ordinances and private fire protection. Essentials of firefighting including fire department operations, firefighting equipment and safety. Emphasis on the chemistry of fire, and techniques of firefighting.

*Three lecture.*

##### **FSC104. Hazardous Materials First Responder-Operations (2).**

Introduction to the major categories of hazardous materials. Includes detection, identification, scene management, basic training, equipment planning, strategy and tactics in the management of hazardous materials incidents. Preparation for Department of Emergency Services certificate.

*Two lecture.*

##### **FSC105. Firefighter Certification Academy (10).**

Essentials of firefighting including fire department operations, firefighting equipment, and safety. Emphasis on the chemistry of fire, techniques of firefighting, and utilization of equipment in fire suppression. Preparation for State Fire Marshal Fire Fighter I and II certification.

*Prerequisite: FSC 104.*

*Eight lecture. Six lab.*

##### **FSC115. Firefighter Recruit Academy (4).**

Role and functions of the entry-level firefighter. Emphasis on practical aspects of fire suppression and operations.

*Three lecture. Two lab.*

##### **FSC135. Fundamentals of Fire Prevention (3).**

Role and functions of fire prevention. Emphasis on practical rather than theoretical aspects of fire prevention.

*Three lecture.*

##### **FSC136. Fire Apparatus and Hydraulics (4).**

Principles of care, maintenance and operation of fire apparatus and pumps. Includes pump construction, pumping and pump accessories, power development and transmission, driving, trouble shooting and producing effective fire streams. Review of basic math hydraulic laws and formulas as applied to the fire service. Application of formulas and mental calculations to hydraulic problems, water supply variables and discharge requirements for pumpers.

*Prerequisite: FSC 100 or FSC 105 or FSC 115 and any math course 100 level or higher.*

*Three lecture. Three lab.*

##### **FSC150. Uniform Fire Code (3).**

Essentials and principles of the Uniform Fire Code as published by the International Fire Code Institute.

*Prerequisite: FSC 100 or FSC 105 or FSC 115.*

*Three lecture.*

##### **FSC155. Wildland Fire Suppression (3).**

Introduction to wildland fire prevention, including fire behavior, suppression methods, equipment considerations, safety, and incident command.

*Three lecture.*

##### **FSC201. Fundamentals of Hazardous Materials (4).**

Fundamentals of chemicals encountered in fire service. Chemistry of flammable materials, containers used to store and transport hazardous materials, and equipment and materials used to control emergencies involving hazardous materials. Includes tactics for hazardous materials emergencies, federal and state laws, and disposal of hazardous materials.

*Prerequisite: FSC 104.*

*Four lecture.*

##### **FSC234. Fire Investigation (3).**

Methods of determining point of fire origin and fire cause and detection of incendiary fires. Includes simplified physics and chemistry necessary to analyze fire behavior.

*Prerequisite: FSC 100 or FSC 105 or FSC 115.*

*Three lecture.*

## COURSE DESCRIPTIONS

### **FSC235. Fire Protection Systems (3).**

The required standard for water supply; protection systems; automatic sprinklers and special extinguishing systems, including analysis of various automatic signaling and detection systems.

*Prerequisite: FSC 100 or FSC 105 or FSC 115.*

*Three lecture.*

### **FSC236. Firefighter Occupational Safety (3).**

Emphasis on awareness, training and research of equipment to develop a safety program meeting needs of the fire service to reduce injuries.

*Prerequisite: FSC 100 or FSC 105 or FSC 115.*

*Three lecture.*

### **FSC238. Emergency Scene Management (3).**

Effective methods of managing emergency incidents including multiple alarm fires, high rise fires, brush fires, hazardous materials incidents and multi-casualty medical incidents. Includes effective interaction among numerous agencies to achieve control.

*Prerequisite: FSC 100 or FSC 105 or FSC 115.*

*Three lecture.*

### **FSC239. Fire Department Company Officer (3).**

Supervisory methods for the fire service in fire safety, fire department organization and personnel supervision. Elements of management for the first-level Company officer Supervisor. Includes principles of organization, communication, leadership and emergency incident management.

*Prerequisite: FSC 100 or FSC 105 or FSC 115.*

*Three lecture.*

### **FSC240. Management in the Fire Service (3).**

Advanced administrative methods for modern fire departments and public organizations. Community planning, data analysis, legal issues, budgeting, planning, professional development and labor relations.

*Prerequisite: FSC 239.*

*Three lecture.*

### **FSC241. Firefighter Safety and Building Construction (3).**

Instruction in safety for firefighters on the fire ground. Effects of fire and heat on various types of building construction resulting in the loss of structure. Includes signs and symptoms of structural damage.

*Prerequisite: FSC 100 or FSC 105 or FSC 115.*

*Three lecture.*

### **FSC242. Hazardous Materials Technician Tactics (3).**

Behavior and dangers of hazardous materials. Emphasis on commonly encountered chemicals and factors which impact a responder's decisions at the scene. Field identification of unknown chemicals.

*Prerequisite: FSC 200.*

*Three lecture.*

### **FSC296. Internship: Fire Science (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **FSC299. Independent Study Fire Science (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ FRENCH (FRE)

### **FRE101. Beginning French I (4).**

Fundamentals of speaking, writing, listening, and reading of French. Introduction to the culture of the French-speaking world.

*Four lecture.*

### **FRE102. Beginning French II (4).**

Development of speaking, writing, listening, and reading proficiency in French at the novice mid/novice high level. Culture of the French-speaking world.

*Prerequisite: FRE 101.*

*Four lecture.*

### **FRE131. Conversational French I (3).**

Fundamentals of speaking and listening skills in French. Introduction to the culture of the French-speaking world.

*Three lecture.*

### **FRE132. Conversational French II (3).**

Speaking and listening skills in French at the novice level. Culture of the French-speaking world.

*Prerequisite: FRE 131.*

*Three lecture*



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## Yavapai College CATALOG

### COURSE DESCRIPTIONS



**A B C D E F G H I J M N P R S T V W**

#### **FRE201. Intermediate French I (4).**

Development of speaking, writing, listening, and reading proficiency in French at the novice high level. Culture of the French-speaking world.

*Prerequisite: FRE 102 or score of 70% on the recommended FRE 201 skills assessment exam.*

*Four lecture.*

#### **FRE202. Intermediate French II (4).**

Development of speaking, writing, listening, and reading proficiency in French at the intermediate low level. Culture of the French-speaking world.

*Prerequisite: FRE 201 or score of 70% on the recommended FRE 202 skills assessment exam.*

*Four lecture.*

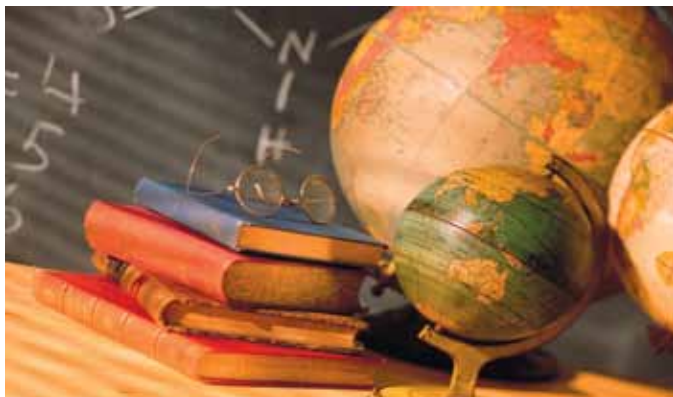
#### **FRE296. Internship: French (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

#### **FRE299. Independent Study French (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.



#### **■ GEOGRAPHY (GEO)**

##### **GEO101. World Geography - West (3).**

A geographical exploration of the people, places, and landscapes of North America, South America, Europe and Russia.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

##### **GEO102. World Geography - East (3).**

A geographical exploration of the people, places, and landscapes of Africa, Asia and Australia/Pacific Islands.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

##### **GEO103. Introduction to Physical Geography (4).**

A geographic introduction to the physical processes and land forms of the earth.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

##### **GEO105. Introduction to Cultural Geography (3).**

An geographical exploration of the human landscape, examining aspects of culture such as language, religion, political organization and economics.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

##### **GEO212. Introduction to Meteorology (4).**

Physical and chemical conditions that regulate global weather phenomena. Includes structure of the atmosphere, temperature, humidity, air pressure and winds, the development of weather systems, tornadoes and hurricanes, and the parameters that affect local and global climate. Laboratory includes image interpretation, field observation and prediction.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

## COURSE DESCRIPTIONS

### **GEO296. Internship: Geography (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **GEO299. Independent Study Geography (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ GEOLOGY (GLG)

### **GLG100. Concepts in Basic Geology (2).**

Fundamental principles of geology, including rocks and minerals, internal and external earth processes and plate tectonics.

*Prerequisite: Reading Proficiency.*

*Two lecture.*

### **GLG101. Introduction to Geology I (4).**

Geologic principles emphasizing the structure and composition of the earth, internal and external earth processes and plate tectonics.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

### **GLG102. Introduction to Geology II (4).**

Earth's origin and history, including plate tectonics and the consequent movement and distribution of lands and seas through time; basic concepts of age-dating, stratigraphy, and the study of fossils. The geologic time scale and development of life on earth.

*Prerequisite: GLG 100 or GLG 101. Reading Proficiency.*

*Three lecture. Three lab.*

### **GLG104. Cave Geology (2).**

Studies of ground water, karst, and cavern development. Field trip(s).

*Prerequisite: GLG 100 or GLG 101. Reading Proficiency.*

*One lecture. Three lab.*

### **GLG105. Geology of Canyon Lands (2).**

Geologic investigation of the slick rock canyon country of northern Arizona and southern Utah, with emphasis on stratigraphic relationships and depositional environments. Field trip.

*Prerequisite: GLG 100 or GLG 101. Reading Proficiency.*

*One lecture. Three lab.*

### **GLG106. Geology of Bryce and Zion (2).**

Stratigraphy and landforms of Bryce and Zion national parks. Study of Earth's history starting where the Grand Canyon story ends. Field trip.

*Prerequisite: GLG 100 or GLG 101. Reading Proficiency.*

*One lecture. Three lab.*

### **GLG107. Geology of Death Valley (2).**

Land form and sediments characteristic of arid regions. Geologic history and plate tectonic setting of the Death Valley area. Field trip.

*Prerequisite: GLG 100 or GLG 101. Reading Proficiency.*

*One lecture. Three lab.*

### **GLG108. Volcanoes and Earthquakes of Northern Arizona (2).**

Volcanism and seismicity of northern Arizona. One or more field trips, including Sunset Crater and the San Francisco volcanic field.

*Prerequisite: GLG 100 or GLG 101. Reading Proficiency.*

*One lecture. Three lab.*

### **GLG109. Geology of the Prescott Region (2).**

Rocks, land forms, and geologic history of region around Prescott. Field trips.

*Prerequisite: GLG 100 or GLG 101. Reading Proficiency.*

*One lecture. Three lab.*

### **GLG/ENV110. Environmental Geology (4).**

Introduction to geologic studies and their application to environmental problems, causes and possible solutions. Includes geologic processes, geohazards, and geologic natural resources.

*Prerequisite: Reading Proficiency.*

*Three lecture. Three lab.*

### **GLG112. Geology of Northern Arizona (2).**

Stratigraphy, volcanology, geomorphology, glacial, and structural geology applied to specific localities in northern Arizona. Field trip(s).

*Prerequisite: GLG 100 or GLG 101. Reading Proficiency.*

*One lecture. Three lab.*

### **GLG113. Geology of Grand Canyon (2).**

Geology, geography, stratigraphy, structure, history, and paleontology of the Canyon. Field trip(s).

*Prerequisite: GLG 100 or GLG 101. Reading Proficiency.*

*One lecture. Three lab.*

## COURSE DESCRIPTIONS

### **GLG114. Evolution of the Basin and Range (2).**

Geologic history of the Basin and Range physiographic province, emphasizing the relationship between current geology/geomorphology and plate tectonics. Field trip(s).

*Prerequisite: GLG 100 or GLG 101. Reading Proficiency.*

*One lecture. Three lab.*

### **GLG115. Implications of Plate Tectonics (2).**

Plate tectonics-oriented approach to many facets of basic geology, including seafloor spreading, continental drift, volcanism and the development of characteristic geologic structures and ore deposits. Field trip(s).

*Prerequisite: GLG 100 or GLG 101. Reading Proficiency.*

*One lecture. Three lab.*

### **GLG116. Geology of the Verde Valley (2).**

Rocks, land forms and geologic history of the region immediately surrounding and including the Verde Valley. Field trip(s).

*Prerequisite: GLG 100 or GLG 101. Reading Proficiency.*

*One lecture. Three lab.*

### **GLG130. Water in Arizona (2).**

Surface and ground water resources of Arizona. History of development, use and misuse.

*One lecture. Three lab.*

### **GLG132. Topics in Regional Geology (2).**

Basic geology, geography, and geologic formation of selected regions. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*One lecture. Three lab.*

### **GLG296. Internship: Geology (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **GLG299. Independent Study Geology (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ GERMAN (GER)

### **GER101. Beginning German I (4).**

Fundamentals of speaking, writing, listening, and reading of German. Introduction to the culture of the German-speaking world.

*Four lecture.*

### **GER102. Beginning German II (4).**

Development of speaking, writing, listening, and reading proficiency in German at the novice mid/novice high level. Culture of the German-speaking world.

*Prerequisite: GER 101 or score of 70% on the recommended GER 102 skills assessment exam.*

*Four lecture.*

### **GER131. Conversational German I (3).**

Fundamentals of speaking and listening skills in German. Introduction to the culture of the German-speaking world.

*Three lecture.*

### **GER201. Intermediate German I (4).**

Development of speaking, writing, listening, and reading proficiency in German at the novice high level. Culture of the German-speaking world.

*Prerequisite: GER 102 or score of 70% on the recommended GER 201 skills assessment exam.*

*Four lecture.*

### **GER296. Internship: German (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

**GER299. Independent Student German (1-6).** Supervised special project in this field of study. Approval of supervising Division Dean is required.

## COURSE DESCRIPTIONS

### ■ GERONTOLOGY (GRN)

#### **GRN100. Introduction to Social Gerontology (3).**

Gerontology is a multi-disciplinary field of study. Emphasis on psychology, sociology, economics, ethics, health care, legal issues related to working with older adults.

*Three lecture.*

#### **GRN101. Psychology of Aging (3).**

Study of the adult aging process. Focus on developmental psychology. Explore physiological, sociological and psychological issues affecting cognition, personality, and mental health in later years.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **GRN102. Health and Aging (3).**

Designed for students working with older adults. Emphasis on normal changes of aging and preventative measures for maintaining optimal functioning. Focus on health problems, symptoms and treatments.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **GRN103. Economics of Aging (3).**

Examine the micro and macro influences on the economics of aging. Emphasis on public and private sources of income for older adults, relationships between retirement and work, and social and public policy.

*Three lecture.*

#### **GRN294. Practices in Gerontology (3).**

Development of skills such as interviewing, narrative writing, the casework process, intake and assessment, intervention and termination. The values associated with practice in the helping fields will be explored.

*Prerequisite: GRN 100 and GRN 102.*

*Three lecture.*

#### **GRN295. Practicum in Gerontology (2).**

Field experience to apply gerontological theory in a practice setting. Supervision by "on site" supervisor and instructor.

*Prerequisite: GRN 294.*

*Six lab.*

### ■ GUNSMITHING (GST)

#### **GST100. Apprentice Gunsmithing (10).**

Basic gunsmithing skills including shop and general firearms safety, machine tool skills, stockmaking, metal refinishing and ballistics. Integration of computer applications.

*Prerequisite: Admission to the Gunsmithing program.*

*Four lecture. Eighteen lab.*

#### **GST150. Journeyman Gunsmithing (10).**

Intermediate study of machine tool use and firearms applications. Milling, turning, precision grinding, advanced stockmaking procedures. Pistol and revolver design and function. Shotgun design, application and function.

*Prerequisite: GST 100.*

*Four lecture. Eighteen lab.*

#### **GST191. Basic Engraving (4).**

Practice in the art of engraving, primarily on steels used in the manufacturing of firearms. Operations and setups performed on a variety of projects and exercises.

*One lecture. Nine lab.*

#### **GST192. Advanced Engraving (4).**

Design and layout on flat and cylindrical surfaces. Emphasis on balance, selecting tools and fixtures, manipulation of the engraver's vise, and all components familiar to the trade.

*Prerequisite: GST 191.*

*One lecture. Nine lab.*

#### **GST193. Gunstock Checkering (2).**

Checkering wooden stocks using manual checkering tools. Emphasis on construction of templates, flat and curved surface layout, checkering cradle manipulation, repair of damaged checkering, and conversion of impressed checkered stocks.

*Two lecture.*

#### **GST195. Gunsmithing Practicum (3).**

Laboratory and extended shop experience for students to develop skills in project planning, drawing and craftsmanship.

*Prerequisite: Concurrent enrollment in one or more of the 100-level gunsmithing courses.*

*Eight lab.*

#### **GST200. Professional Gunsmithing (10).**

Advanced gunsmithing techniques and applications of existing skills. Studies in precision barreling of rifles. Major pistol and revolver modifications. Study of break action shotguns, and machining of major firearm components.

*Prerequisite: GST 150.*

*Four lecture. Eighteen lab.*

# 2010/11

## Yavapai College CATALOG

### COURSE DESCRIPTIONS



**A B C D E F G H I J M N P R S T V W**

#### **GST210. Caustic Bluing (2).**

Use of caustic bluing to finish metals in the firearms industry. Includes metal identification, preparation and application.

*Two lecture.*

#### **GST215. Rust Bluing (2).**

Use of rust bluing to finish metals in the firearms industry. Includes metal identification, preparation and application.

*Two lecture.*

#### **GST220. Rifle Barreling (2).**

Principles of fitting a barrel to a variety of bolt action rifles. Includes measurements, threading, chambering, crowning and contouring.

*Two lecture.*

#### **GST225. Accurizing Bolt Action Rifles (3).**

Introduction to the tools, techniques and components necessary for the best possible accuracy from your action, barrel, stock combination.

*Three lecture.*

#### **GST250. Master Gunsmithing (10).**

Mastery of Gunsmithing skills and metal skills. Capstone course to build the student portfolio. Construction of a business plan.

*Prerequisite: GST 200.*

*Four lecture. Twenty-seven lab.*

#### **GST291. Professional Firearms Engraving (4).**

Individualized instruction in advanced methods and techniques employed by professional firearms engravers. Student must provide pistol or rifle to be engraved.

*Prerequisite: GST 192*

*One lecture. Nine lab.*

#### **GST295. Advanced Gunsmithing Practicum (3).**

Advanced gunsmithing laboratory and practice for students concurrently enrolled in one or more of the 200-level gunsmithing courses. Emphasis on development of a project plan, application of tooling and craftsman skills, and use of quality control standards.

*Prerequisite: Concurrent enrollment in a 200-level gunsmithing course.*

*Eight lab.*

#### **GST296. Internship: Gunsmithing (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

#### **GST299. Independent Study Gunsmithing (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

### ■ **HEALTH INFORMATION MANAGEMENT (HIM)**

#### **HIM100. Introduction to Health Information Management (3).**

Introduction to the various functions performed in a health record department with emphasis on maintaining confidentiality of patient data. Content, structure, analyses, storage methods, and retrieving patient record and data elements within the health information system.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **HIM140. Disease Process (4)**

Examination of the most common diseases of each body system, with normal anatomy and physiology compared to pathologic anatomy and physiologic malfunctioning due to disease process. Diagnostic methods, etiology, management, treatment, modalities, pharmacology and prognosis are discussed.

*Prerequisite: BIO 160. Reading Proficiency.*

*Four lecture.*



## COURSE DESCRIPTIONS

### **HIM141. Healthcare Delivery Systems (2)**

Overview of the healthcare delivery systems at the national, state and local levels. Current trends in healthcare delivery including health facilities, medical staff organization and functions, the changing roles of healthcare professional and patterns of financing healthcare.

*Prerequisite: HIM 100.*

*Two lecture.*

### **HIM142. Healthcare Reimbursement Methodology (3)**

Major reimbursement systems used for professional and institutional reimbursement in various healthcare settings with an emphasis on health data collection and classification implications.

*Prerequisite: HIM 170.*

*Three lecture.*

### **HIM170. ICD-9 Medical Coding (4).**

Principles of coding and classification using the ICD-9 (International Coding of Diseases) manual in the assignment of valid diagnostic and/or procedure codes. Includes: medical necessity, coding issues for specific body systems, and for general conditions.

*Prerequisite: HIM 100 and BIO 160 and AHS 131 and AHS 132.*

*Reading Proficiency.*

*Four lecture.*

### **HIM171. CPT Medical Coding (3).**

Techniques and conventions of CPT (Current Procedural Terminology) coding and Evaluation and Management (E/M) coding. Organization and structure of the CPT manual, and how to transform descriptions into valid procedural codes. Emphasis on each body system in the surgery, lab, pathology, and medicine sections of the CPT manual.

*Prerequisite: HIM170. Reading Proficiency.*

*Three lecture.*

### **HIM172. Legal and Ethical Aspects of Health Information Management (2).**

Legislation and regulations related to health information management with an emphasis on privacy and confidentiality, access, HIPAA directives, ethical guidelines and decision making.

*Prerequisite: Reading Proficiency.*

*Two lecture.*

## ■ HISTORY (HIS)

### **HIS131. United States History I (3).**

Survey of social, economic, political, and cultural history from pre-Contact through the Civil War. Emphasis on conflicting interpretations of historical events and evidence. Examination of the continental approach to the development of the United States. Interpretation of the diversity of the American people and their various contributions to America's shared past.

*Prerequisite: ENG 101 or ENG 103; or COM 135 and ENG 136.*

*Reading Proficiency.*

*Three lecture.*

### **HIS132. United States History II (3).**

Survey of social, economic, political and cultural history from 1865 through the 1980s. Explore diversity of the American people. Examine continued development of racism, social movements of reform, industrial America and the growth of labor and its concerns. Examine American imperialism and its impact on the world.

*Prerequisite: ENG 101 or ENG 103; or COM 135 and ENG 136.*

*Reading Proficiency.*

*Three lecture.*

### **HIS135. History of Arizona (3).**

Survey of Arizona history from Pre-Columbian times to the present: The Spanish, Mexican, and Anglo-American periods.

*Three lecture.*

### **HIS201. Western Civilization I (3).**

Exploration of the major developments in Western Civilization to 1688. Exploration of the social, intellectual, political, economical, religious, and cultural components that form the core of the modern western world.

*Prerequisite: ENG 101 or ENG 103; or COM 135 and ENG 136.*

*Reading Proficiency.*

*Three lecture.*

### **HIS202. Western Civilization II (3).**

Exploration of the formation of major developments in Western Civilization from 1650 to the present. Exploration of the social, intellectual, political, economical, religious, and cultural components that form the core of the modern western world.

*Prerequisite: ENG 101 or ENG 103; or COM 135 and ENG 136.*

*Reading Proficiency.*

*Three lecture.*

## COURSE DESCRIPTIONS

### **HIS205. World History (3).**

Exploration of major societies of the world from 1750 to the present. Examination of societies in Asia, Europe, African, the Americas, and Oceania. Includes forces of change in the world such as industrialization, nationalism, imperialism, decolonization, urbanization, technology, and political revolutions.

*Prerequisite:* ENG 101 or ENG 103; or COM 135 and ENG 136.

*Reading Proficiency.*

*Three lecture.*

### **HIS230. Islamic Civilization: Traditional and Modern Middle East (3).**

Traditional and contemporary social, political, economic, and gender institutions of Islamic societies. Emphasis on problems associated with modernization, colonization, and imperialism.

*Three lecture.*

### **HIS253. History of Women in the United States (3).**

Roles and contributions of women in history of the United States, with emphasis on social and cultural aspects of the feminist movements in 19th and 20th centuries. How woman's roles and the family have been affected by the modernization process.

*Prerequisite:* Reading Proficiency.

*Three lecture.*

### **HIS260. History of Native Americans in the United States (3).**

Survey of social, economic, political, and cultural history of indigenous peoples of the continental United States from the fifteenth century to present. Emphasis on Native American actions and responses to contact with European-Americans. Growth and development of federal Indian policy.

*Prerequisite:* Reading Proficiency.

*Three lecture.*

### **HIS296. Internship: History (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite:* Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.

### **HIS299. Independent Study History (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ HUMANITIES (HUM)

### **HUM101. Introduction to Popular Culture (3).**

Analyzing and evaluating the relationships among technological innovation, business practices and ethical questions. Application of critical thinking skills to assess issues, identify influencing factors, and make informed decisions.

*Prerequisite:* Reading Proficiency.

*Three lecture.*

### **HUM202. Introduction to Mythology (3).**

Examination of humanist questions through European and Non-Western mythologies. Issues include: creation of the world, cosmology, fertility/sexuality, human nature, the problem of evil, death, nature of gods/goddesses/God, and the natural world.

*Prerequisite:* ENG 101 or ENG 103. Reading Proficiency.

*Three lecture.*

### **HUM205. Technology and Human Values (3).**

Explores the relationship between technological development and individual and social values in the Western World from ancient times through the present. Includes technologies connected with a variety of areas, such as medicine, the military, architecture, food and agricultural production, and labor relations.

*Prerequisite:* ENG 101 or ENG 103. Reading Proficiency.

*Three lecture.*

### **HUM236. American Arts and Ideas II (3).**

Cultural development of the United States from the Civil War to present, as reflected in its literature, arts, and history.

*Prerequisite:* ENG 101 or ENG 103. Reading Proficiency.

*Three lecture.*



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## Yavapai College CATALOG

### COURSE DESCRIPTIONS



A B C D E F G H I J M N P R S T V W

#### **HUM241. Humanities in the Western World I (3).**

Humanities in the Western World I. Study of relationships among literature, history, philosophy, visual arts, and performing arts from classical Greece through the Middle Ages.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

#### **HUM242. Humanities in the Western World II (3).**

Study of relationships among literature, history, philosophy, visual arts, and performing arts from the Renaissance to late 20th century.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

#### **HUM/THR243. Development of the Film (3).**

Historical and critical survey of the development of film as an art form, as a system of representation and communication, and as an industry from its invention to the present day. How films work technically, aesthetically, and culturally to create and reinforce social norms.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **HUM296. Internship: Humanities (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

#### **HUM299. Independent Study Humanities (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

#### ■ **INDUSTRIAL PLANT TECHNOLOGY (IPT)**

##### **IPT110. Industrial Shop Practices (3).**

Basic skills needed to work in industrial repair and maintenance shops, emphasizing safe and efficient use of hand and power tools, fine measurement, tool maintenance and sharpening.

*One lecture. Four lab.*

##### **IPT120. Industrial Pump Maintenance and Repair (3).**

Types of pumps and their associated piping systems as applied in industrial settings.

*One lecture. Four lab.*

##### **IPT130. Industrial Valve Maintenance and Repair (3).**

Valves and their associated piping systems as applied in industrial settings.

*One lecture. Four lab.*

##### **IPT140. Bulk Materials Handling (3).**

Operation, maintenance, and repair of industrial materials handling machinery including conveyors, feed and discharge devices, screens, and crushers.

*One lecture. Four lab.*

##### **IPT160. Machinery Maintenance and Troubleshooting (3).**

Systematic methods of identifying causes of mechanical failure and using predictive methods to prevent mechanical failure.

*Prerequisite: IPT 140.*

*One lecture. Four lab.*

##### **IPT260. Advanced Machinery Maintenance (3).**

Advanced maintenance procedures of heavy industrial machinery.

*Prerequisite: IPT 160.*

*Two lecture. Three lab.*

##### **IPT261. Machine Shop (3).**

Theory and practice in history, concepts, safety and job planning in the machine shop.

*Two lecture. Three lab.*

# 2010/11

## Yavapai College CATALOG

### COURSE DESCRIPTIONS



A B C D E F G H I J M N P R S T V W

#### **IPT295. Apprenticeship: Industrial Plant (3).**

Supervised field experience. Repeatable for a total of twelve credit hours towards degree/certificate.

#### **IPT296. Internship: Industrial Plant Technician (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### ■ **INTERIOR DESIGN (INT)**

#### **INT101. Introduction to Interior Design (3).**

Introduction to the interior design profession. Includes the design process, space planning, color and lighting. Emphasis on design principles for residential interiors.

*Three lecture.*

### ■ **ITALIAN (ITA)**

#### **ITA101. Beginning Italian I (4).**

Fundamentals of speaking, writing, listening, and reading of Italian. Introduction to the culture of the Italian-speaking world.

*Four lecture.*

#### **ITA102. Beginning Italian II (4).**

Development of speaking, writing, listening, and reading proficiency in Italian at the novice mid/novice high level. Culture of the Italian-speaking world.

*Prerequisite: ITA 101 or score of 70% on the recommended ITA 102 skills assessment exam.*

*Four lecture.*

#### **ITA296. Internship: Italian (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

#### **ITA299. Independent Study Italian (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

### ■ **JOURNALISM (JRN)**

#### **JRN131. Mass Media in American Society (3).**

Critical examination of mass media and its social, historical, economic and political impact on American society.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **JRN150. Newswriting and Reporting (3).**

Instruction and practice in reporting and news writing for the print media. Analysis of news writing--language, style, organization, and leads. Practice in editorial, feature, and interpretive writing. Study of legal and ethical aspects of the profession. Development of news gathering and interviewing skills.

*Prerequisite: ENG 100 or skills assessment into ENG 101.*

*Reading Proficiency.*

*Three lecture.*

#### **JRN250. Advanced Newswriting and Reporting (3).**

Writing, organizational and research skills, especially as adapted to journalistic style. Emphasis on reading, rewriting and research, with focus on writing with accuracy, brevity and clarity.

*Prerequisite: JRN 150.*

*Three lecture.*

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## Yavapai College CATALOG

### COURSE DESCRIPTIONS



**A B C D E F G H I J M N P R S T V W**

#### **JRN296. Internship: Journalism (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

#### **JRN299. Independent Study Journalism (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

### ■ **MANUFACTURING ENGINEERING TECHNOLOGY (MET)**

#### **MET100. Introduction to Manufacturing Technology (4).**

Introduction to Manufacturing Technology including safe practices, tools and measurement devices and applied mathematics. Emphasis on problem solving, computer-aided design, blueprint reading, fabrication, assembly, and control systems.

*Preparedness recommendations: Two years of high school math and general computer literacy.*

*Two lecture. Six lab.*

#### **MET116. Rigging (1).**

Basic rigging techniques, hitch configurations, safe loading practices, load inspection and American National Standards Institute (ANSI) approved hand signals. Use of slings and common rigging hardware.

*One lecture.*

#### **MET150. Surface Mine Safety Training (1).**

U.S. Mine Safety and Health Administration requirements for new miner training for individuals, contractors, and mine employees.

*One lecture.*

#### **MET160. Basic Machine Hydraulics and Pneumatics (2).**

Operational theory and testing techniques related to hydraulic and pneumatic components and circuits on mobile diesel equipment. Includes fluid power principles and investigates the functional characteristic of hydraulic pumps, flow valves, pressure valves, directional valves, motors, cylinders and accumulators. Emphasis on the student's ability to test, service, and repair diesel equipment hydraulic systems and system components.

*One lecture. Two lab.*

#### **MET296. Internship: Manufacturing Engineering Technology (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

#### **MET299. Independent Study Industrial Technology/ Manufacturing (1-6).**

Supervised special projects in this field of study. Approval of supervising Division Dean is required.

### ■ **MATHEMATICS (MAT)**

#### **MAT032. Math Made Easy (1).**

Theory and practice in performing multiplication problems, in solving more difficult addition, subtraction, multiplication, and division problems without the use of a calculator, and in estimating the answer to an arithmetic problem of the type encountered in business and personal finance.

*One lecture.*

#### **MAT082. Fundamentals of Mathematics (3).**

Review of basic arithmetic skills, introduction to geometric shapes and formulae, ratio and proportion, percents, measurement, and signed numbers.

*Three lecture.*



## COURSE DESCRIPTIONS

### **MAT092. Beginning Algebra (3).**

Review of real number operations, solving linear equations, working with formulae and dimensional analysis, solving linear inequalities, graphs of linear equations, systems of linear equations and inequalities, exponents, basic operations on polynomials, and an introduction to mathematics technology. Note: Computer use and graphing calculator required. (TI - 83/84 recommended).

*Prerequisite: MAT 082, or one year of high school algebra completed within the last 4 years, or a satisfactory score on the mathematics skills assessment.*

*Three lecture.*

### **MAT100. Technical Mathematics (3).**

Review of arithmetic skills, proportions, percentages, exponents, algebraic equations of the first degree, basic geometry, and literal equations with applications designed for the student's own field of study.

*Prerequisite: MAT 082, or one year of high school algebra completed within the last 4 years, or a satisfactory score on the mathematics skills assessment. [Reading Proficiency.](#)*

*Three lecture.*

### **MAT122. Intermediate Algebra (3).**

Simplifying polynomial, rational and radical expressions; solving quadratic, rational and radical equations; introducing functions and their representations; applying mathematics in real-world contexts; and using appropriate technology. Note: Computer use and graphing calculator required. (TI-83/84 recommended)

*Prerequisite: MAT 092, or two years of high school algebra completed within the last 4 years, or a satisfactory score on the mathematics skills assessment. [Reading Proficiency.](#)*

*Three lecture.*

### **MAT142. College Mathematics (3).**

Survey of mathematical topics and applications. Includes statistics, probability, exponential functions, finance, dimensional analysis and other selected discrete math topics. Note: Computer use and graphing calculator required. (TI-83/84 recommended)

*Prerequisite: MAT 122, or two years of high school algebra and one year of geometry completed within the last 4 years, or an ACT Math score of at least 22, or an SAT Math score of at least 530, or a satisfactory score on the mathematics skills assessment.*

*[Reading Proficiency.](#)*

*Three lecture.*

### **MAT152. College Algebra (3).**

Modeling of applications using linear, quadratic, exponential and logarithmic functions. Introduction to solving systems of equations using matrices. Duplicate credit for MAT 152 and/or MAT 183 and MAT 187 will not be awarded. Note: Computer use and graphing calculator required. (TI-83/84 recommended)

*Prerequisite: MAT 122, or two years of high school algebra and one year of geometry completed within the last 4 years, or an ACT Math score of at least 22, or an SAT Math score of at least 530, or a satisfactory score on the mathematics skills assessment.*

*[Reading Proficiency.](#)*

*Three lecture.*

### **MAT156. Mathematics for Elementary Teachers I (3).**

Mathematical principles and processes specifically for elementary teachers. Includes problem solving, set theory, properties and operations with number systems. Note: Computer use required.

*Prerequisite: MAT 142 or MAT 152 or satisfactory score on mathematics skills assessment. [Reading Proficiency.](#)*

*Three lecture.*

### **MAT157. Mathematics for Elementary Teachers II (3).**

Mathematical principles and processes specifically for elementary teachers. Includes geometry, measurement, statistics, and probability. Note: Computer use required.

*Prerequisite: MAT 142 or MAT 152 or satisfactory score on mathematics skills assessment. [Reading Proficiency.](#)*

*Three lecture.*

### **MAT167. Elementary Statistics (3).**

Statistical tools and techniques used in research and general applications. Description of sample data, probability and probability distributions, point and interval estimates of population parameters, hypothesis testing, and correlation and regression.

*Prerequisite: MAT 142 or MAT 152 or satisfactory score on mathematics skills assessment. [Reading Proficiency.](#)*

*Three lecture.*

### **MAT172. Finite Mathematics (3).**

Various analytic methods employed in business, social and life sciences with an emphasis on applications. Topics include algebra review, linear programming, matrix operations, linear systems of equations, set theory, counting, probability and statistics. Note: Computer use and graphing calculator required. (TI-83/84 recommended)

*Prerequisite: MAT 152 or satisfactory score on mathematics skills assessment. [Reading Proficiency.](#)*

*Three lecture.*

## COURSE DESCRIPTIONS

### **MAT 183. Trigonometry (2).**

Trigonometric functions, radian measure, right and oblique triangle solutions, trigonometric identities and equations, and inverse trigonometric functions. Duplicate credit for MAT 152 and/or MAT 183 and MAT 187 will not be awarded.

*Prerequisite:* MAT 152 or satisfactory score on mathematics skills assessment. [Reading Proficiency.](#)

Two lecture.

### **MAT187. Precalculus (5).**

Topics from college algebra and trigonometry essential to the study of calculus and analytic geometry. Includes linear, quadratic, polynomial, rational, exponential, circular, and trigonometric functions. Trigonometry, systems and equations and matrices. Duplicate credit for MAT 152 and/or MAT 183 and MAT 187 will not be awarded.

*Prerequisite:* MAT 122, or two years of high school algebra and one year of geometry completed within the last 4 years, or an ACT Math score of at least 22, or an SAT Math score of at least 530, or a satisfactory score on the mathematics skills assessment.

[Reading Proficiency.](#)

Five lecture.

### **MAT212. Survey of Calculus (3).**

Introduction to the theory, techniques and applications of the differential and integral calculus of elementary functions with emphasis on applications in business, life, and social sciences. Note: Computer use and graphing calculator required. (TI-83/84 recommended)

*Prerequisite:* MAT 152 or satisfactory score on mathematics skills assessment. [Reading Proficiency.](#)

Three lecture.

### **MAT220. Calculus and Analytic Geometry I (5).**

Introduction to calculus of single variable functions. Includes limits, the fundamental principles of differentiation and integration, techniques for finding derivatives of algebraic and trigonometric functions and applications of derivatives. Note: Computer use and graphing calculator required. (TI-83/84 recommended)

*Prerequisite:* MAT 187 or MAT 152 and MAT 183 or equivalent or satisfactory score on mathematics skills assessment.

[Reading Proficiency.](#)

Five lecture.

### **MAT230. Calculus and Analytic Geometry II (5).**

Concepts, techniques and applications of integration, infinite series, and introduction to differential equations.

Note: Computer use and graphing calculator required. (TI-83/84 recommended)

*Prerequisite:* MAT 220. [Reading Proficiency.](#)

Five lecture.

### **MAT241. Calculus III (4).**

Multivariable calculus. Includes multiple integration, partial differentiation, optimization, vector calculus, line integrals, and parametric curves. Note: Computer use and graphing calculator required.

*Prerequisite:* MAT 230. [Reading Proficiency.](#)

Four lecture.

### **MAT262. Elementary Differential Equations (3).**

Introduction to ordinary differential equations. Includes first order linear equations, higher order linear equations, applications of first and second order equations, Laplace transforms, and systems of linear differential equations.

*Prerequisite:* MAT 241. [Reading Proficiency.](#)

Three lecture.

### **MAT296. Internship: Math (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite:* Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.

### **MAT299. Independent Study Mathematics (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ **MOTORCYCLE TECHNOLOGY (MTC)**

### **MTC105. Introduction to Motorcycle Technology (3).**

Basic theory and fundamentals of motorcycle maintenance and minor repair. Includes two- and four- stroke theory, brakes, frames, drivetrains, electrical, suspension, fuel systems, and wheels.

Two lecture. Three lab.

### **MTC110. Motorcycle Brakes, Suspension, Wheels and Tires (3).**

Theory and fundamentals of basic motorcycle brakes, suspension systems, wheels and tires.

Two lecture. Two lab.

### **MTC140. Introduction to Motorcycle Electrical Systems (2).**

Basic motorcycle electrical theory, system maintenance, testing and diagnostic methods for repairing ignition, charging and starting systems.

One lecture. Two lab.

## COURSE DESCRIPTIONS

### **MTC210. American Motorcycle Service Procedures (2).**

Procedures and techniques of regular service intervals for the American motorcycle enthusiast, with emphasis on Harley Davidson and aftermarket brands. Includes diagnosis and service of motorcycles.

*One lecture. Two lab.*

## ■ MUSIC (MUS)

### **MUS100. Elements of Music (2).**

Basic elements of music. Study of the staff, clefs, signatures, notes, rhythms, definitions, ear training, sight singing and diction. Designed for those with little or no knowledge of music.

*Two lecture.*

### **MUS101. Private Music I (1).**

Individual, self-paced instruction in piano, organ, voice, guitar, band or orchestra instruments. Open to all students in the college.

### **MUS102. Private Music II (1).**

Individual, self-paced instruction in piano, organ, voice, guitar, band or orchestra instruments. Open to all students in the college.

*Prerequisite: MUS 101.*

### **MUS103. Piano Class I (1).**

A skill-building piano lab with an emphasis on piano playing and music reading.

*Three lab.*

### **MUS104. Piano Class II (1).**

Skill-building piano lab for students with limited piano experience. Emphasis on piano playing, music reading, and music theory.

*Prerequisite: MUS 103.*

*Three lab.*

### **MUS105. Voice Class I (1).**

Fundamentals of singing. Includes breath support and articulation while singing and introductory-level music reading.

*Three lab.*

### **MUS106. Voice Class II (1).**

Intermediate voice class designed to advance individual singing skills by study and training in singing technique, musicianship, diction, performance and in repertoire.

*Prerequisite: MUS 105.*

*Three lab.*

### **MUS107. Guitar Class I (1).**

Beginning instruction on acoustic guitar. Chords and chord strumming, note reading, finger styles and basic music theory. Opportunities to explore classical, folk, and blues styles of playing. No guitars provided.

*Two lab.*

### **MUS108. Guitar Class II (1).**

Emphasis on bar chords, note reading through the ninth position, double notes, and solos from classical, flamenco, or folk styles of playing. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*Prerequisite: MUS 107.*

*Two lab.*

### **MUS109. Guitar Class III (1).**

Emphasis on repertoire, ensemble, sight reading, and performance. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*Prerequisite: MUS 108.*

*Two lab.*

### **MUS110. Beginning Concert Band (1).**

Instruction and performance of beginning concert band literature in a group setting. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*Three lab.*

### **MUS111. Symphonic Band (1).**

Open to all students in the College. Attendance at all rehearsals and participation in all public performances is required. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*Three lab.*

### **MUS112. Jazz/Rock Ensemble (1).**

Study and performance of a wide range of jazz, rock, and popular music. Audition required. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*Three lab.*

### **MUS113. Big Band I (1).**

Rehearsal and performance of selected intermediate level jazz literature. Audition required. Additional required performances. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*Three lab.*

## COURSE DESCRIPTIONS

### **MUS114. Big Band II (1).**

Rehearsal and performance of selected advanced level jazz literature. Audition required. Additional required performances. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*Three lab.*

### **MUS115. Instrumental Ensemble (1).**

Music reading skills, playing techniques, ensemble playing. Performance participation required. Audition required.

*Three lab.*

### **MUS116. Jazz Combo (1).**

Jazz music reading skills, playing techniques, ensemble playing. Performance participation required. Audition required.

*Three lab.*

### **MUS117. Symphony Orchestra (1).**

Symphony orchestra rehearsal and performance. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*Three lab.*

### **MUS129. Theory Preparation (2).**

Review and the extensive drilling of the basic elements of music: reading, notation, rhythm, scales, intervals, triads, sight singing, and diction. Preparation for enrollment in MUS 131.

*Two lecture.*

### **MUS131. Basic Integrated Theory I (4).**

Basic theory of music including part writing, ear training, sight singing, diction and keyboard harmony. Review of musical notation, intervals, triads and scales. Part writing skills for root position, first and second inversion triads. Sight singing and diction skills through scale passages including intervals of 3rd and 4ths and simple beat divisions. Required of music majors.

*Prerequisite: MUS 129.*

*Four lecture. One lab.*

### **MUS132. Basic Integrated Theory II (4).**

Correlating part writing, ear training, sight singing, diction and keyboard harmony. Part writing skills in phrase structure and cadences, harmony progression, harmonization techniques and use of non-harmonic tones; sight singing and diction skills through minor scale passages, intervals of 5ths through the octave and 16th note beat divisions. Required of music majors.

*Prerequisite: MUS 131.*

*Four lecture. One lab.*

### **MUS151. Applied Music I (2).**

Individual instruction in piano, organ, voice, guitar, band or orchestra instruments for music majors.

### **MUS152. Applied Music II (2).**

Individual instruction in piano, organ, voice, guitar, band or orchestra instruments for music majors.

*Prerequisite: MUS 151.*

### **MUS161. Diction for Singers I (1).**

International Phonetic Alphabet (IPA) as an aid in the pronunciation of English and Italian for singing performance. Application of IPA sounds and symbols to texts in songs.

*Two lab.*

### **MUS162. Diction for Singers II (1).**

International Phonetic Alphabet (IPA) as an aid in the pronunciation of German and French for singing performance. Application of IPA sounds and symbols to texts in songs.

*Prerequisite: MUS 161.*

*Two lab.*

### **MUS190. Oratorio: Handel's Messiah (1).**

Rehearsal and performance of selected choral selections from Handel's Messiah. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*Three lab.*

### **MUS198. Music Topics: (1).**

Exploration of music techniques and expression. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*One lecture.*

### **MUS201. Private Music III (1).**

Individual, self-paced instruction in piano, organ, guitar, voice, band or orchestra instruments. Open to all students in the college.

*Prerequisite: MUS 102.*

### **MUS202. Private Music IV (1).**

Individual, self-paced instruction in piano, organ, guitar, voice, band or orchestral instruments. Open to all students in the college. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*Prerequisite: MUS 201.*

### **MUS203. Piano Class III (1).**

Designed for students with some piano experience. Emphasis on advanced accompaniment skills.

*Prerequisite: MUS 104.*

*Three lab.*

### **MUS204. Piano Class IV (1).**

Designed for students with some piano experience. Emphasis on interpretation.

*Prerequisite: MUS 203.*

*Three lab.*

## COURSE DESCRIPTIONS

### **MUS222. Chamber Singers (1).**

Rehearsal and performance of selected choral literature. Membership by audition. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*Three lab.*

### **MUS223. Vocal Ensemble (1).**

Rehearsal and performance of selected choral literature. No audition required. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*Three lab.*

### **MUS224. Master Chorale (1).**

Rehearsal and performance of selected major choral literature. Membership by audition. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*Three lab.*

### **MUS225. Community Chorale (1).**

Rehearsal and performance of selected choral literature. No audition required. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*Three lab.*

### **MUS226. Chamber Choir (1).**

Rehearsal and performance of selected choral literature. Membership by audition. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*Three lab.*

### **MUS227. Women's Chorale (1).**

Rehearsal and performance of selected choral literature. Audition required. Repeatable for a total of 2 credit hours towards degree/certificate requirements.

*Three lab.*

### **MUS231. Advanced Integrated Theory I (4).**

Advanced theory of music correlating concepts of part writing, sight singing, ear training, diction and keyboard harmony. Part writing skills using 7th chords, secondary dominants and altered non-harmonic tones, modulation and borrowed chords; sight singing and diction skills through altered intervals and syncopated rhythms; keyboard skills realizing a figured bass. Required of music majors.

*Prerequisite: MUS 132.*

*Four lecture. One lab.*

### **MUS232. Advanced Integrated Theory II (4).**

Correlating advanced concepts of part writing, sight singing, ear training, diction and keyboard harmony. Part writing skills using augmented 6th chords, chromatic mediants and modulations to foreign keys; sight singing and diction skills through two, three and four parts; keyboard skills realizing a figured bass. Required of music majors.

*Prerequisite: MUS 231.*

*Four lecture. One lab.*

### **MUS240. Music Appreciation (3).**

Explores the common elements of rhythm, melody, harmony, and form as they connect with the heritage of human understanding. Examines issues of universal human concern that are reflected in all styles of music from folk to classical.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **MUS245. Music of World Cultures (3).**

Cultural and historical ethnic music contributions throughout the world. Social, cultural and spiritual factors affecting music. Emphasis on listening skills, style characteristics, properties of sound and elements of music on various instruments.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **MUS251. Applied Music III (2).**

Individual instruction in piano, organ, voice, guitar, band or orchestra instruments. For music majors.

*Prerequisite: MUS 152.*

### **MUS252. Applied Music IV (2).**

Individual instruction in piano, organ, voice, guitar, band or orchestra instruments. For music majors. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*Prerequisite: MUS 251.*

### **MUS296. Internship: Music (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **MUS299. Independent Study Music (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.



# 2010/11

## Yavapai College CATALOG

### COURSE DESCRIPTIONS



A B C D E F G H I J M N P R S T V W

#### ■ NURSING (NSG)

##### **NSG114. Nursing Assistant (5).**

Preparation for the role of a nursing assistant in a long term care facility. Basic nursing skills and emergency procedures, clients' needs and rights, communication, and ethical/legal aspects of care. Includes classroom and clinical instruction.

*Application required with the following documentation: Skin test or chest x-ray negative for TB or equivalent within 12 months; fingerprint clearance card and Health Care Provider CPR card.*

*Must be at least 16 years old.*

*Prerequisite: Reading Proficiency.*

*Three lecture. Six lab.*

##### **NSG124. Intravenous Therapy and Medication Administration for LPNs (3).**

Meets Arizona State Board of Nursing requirements for preparing a Licensed Practical Nurse to initiate, maintain, and discontinue intravenous therapy and administer selected medications by the IV route within the scope of LPN practice in Arizona. Includes legal aspects, complications of IV therapy, age-specific modifications, and nursing implications for administration of selected IV fluids and medications

*Prerequisite: NSG 132 or Active license as Licensed Practical Nurse or Registered Nurse.*

*Three lecture.*

##### **NSG130. Basic Nutrition for Nurses (1).**

Introduction to the basic concepts of nutrition. Includes a healthy balanced diet, factors that influence nutrition, and diet therapy for certain disease states.

*One lecture.*

##### **NSG131. Foundations in Nursing I (8).**

Introduction to concepts of nursing roles, holistic approach to care, critical thinking and nursing process, pharmacology, nursing skill development, effective communication techniques, learning/teaching and legal, ethical, spiritual, and diversity/culture concepts. Physiological and psychological needs in health and illness including loss, grief and dying, and peri-operative care. Clinical experiences focus on holistic assessment and other selected skills in well defined practice settings.

*Prerequisite: Admission to the Nursing Program.*

*Five lecture. Nine lab.*

##### **NSG132. Concepts in Nursing II (9).**

Introduction to commonly occurring health care concerns. Includes oncology overview, alterations in oxygenation and perfusion, endocrine, musculoskeletal, and gastrointestinal functions, and an introduction to management concepts.

*Prerequisite: NSG 131 and BIO 202 and NSG 130 or NTR 135.*

*Five lecture. Twelve lab.*

##### **NSG133. Practical Nurse Completion Course (2).**

Scope of practice issues for the Practical Nurse, including care of individuals and families experiencing selected psychosocial adaptation and acute health-illness problems. Includes some Practical Nurse level concepts of management and supervision.

*Prerequisite: NSG 231 and NSG 233.*

*Two lecture.*

##### **NSG210. Pharmacology and Nursing Practice (3).**

Overview of pharmacological concepts and their relationship to nursing practice. Survey of selected drug classifications including drug actions, effects in maintaining or restoring homeostasis, side effects, adverse reactions, and application of critical thinking, including the nursing process, in the administration of medication and client teaching. Basic knowledge of chemistry, physiology and nursing recommended.

*Prerequisite: NSG 131.*

*Three lecture.*

##### **NSG231. Concepts in Nursing III (7).**

Concepts of nursing care for clients with commonly occurring health care concerns with an emphasis on the developmental periods of infancy through adolescence. Advanced intravenous therapy. Uses nursing process format and integrates learning/teaching, psychosocial, diversity/cultural, spiritual, nutritional, pharmacological, legal, and ethical aspects. Clinical practicum includes management experience in well defined practice settings.

*Prerequisite: ENG102 and NSG132 and PSY245.*

*Corequisite: NSG233.*

*Three lecture. Twelve lab.*

## COURSE DESCRIPTIONS

### **NSG232. Concepts in Nursing IV (5).**

Concepts of nursing care for clients with commonly occurring health care concerns: Alterations in genito-urinary and neurological functioning, organ transplantation, and multisystem problems including shock and burns. Includes concepts of critical care and emergency/disaster nursing. Uses nursing process format and integrates learning/teaching, psychosocial, diversity/cultural, spiritual, nutritional, pharmacological, management, legal, and ethical aspects. Clinical practicum includes preceptorship experience in well defined practice settings. Use of Health Education Systems, Inc. (HESI) Exit Exam as a progression benchmark and remediation guide.

*Prerequisite:* BIO 205 and NSG231 and NSG233.

*Corequisite:* NSG 234 and NSG 235.

*Two lecture. Nine lab.*

### **NSG233. Perinatal and Women's Health Nursing (2).**

Concepts of nursing care for the preconception, perinatal and postpartum family and neonate. Includes sexually transmitted diseases, men's reproductive and women's health issues.

*Prerequisite:* NSG 132.

*Corequisite:* NSG 231.

*Two lecture.*

### **NSG234. Psychiatric/Mental Health Nursing (3).**

Concepts of nursing care for clients throughout the life span with maladaptive psychosocial and physiological responses related to mental disorders. Uses nursing process format and integrates complex communication techniques, learning/teaching, psychosocial, diversity/cultural, spiritual, nutritional, pharmacological, legal and ethical aspects. Clinical practicum occurs in well-defined settings.

*Prerequisite:* NSG 132.

*Two lecture. Three lab.*

### **NSG235. Nursing Management and Leadership (2).**

Exploration of healthcare and professional organizations, current trends in healthcare and effects of the political process on decision-making. Emphasis on leadership and management skills required for collaboration with others on the healthcare team and how to incorporate research into an evidence-based practice.

*Prerequisite:* NSG 231.

*Two lecture.*

### **NSG236. Clinical Refresher (2).** Clinical practicum including management experience in well-defined practice settings.

*Prerequisite:* NSG 231 and NSG233 and BIO205.

*Six lab.*

### **NSG296. Internship: Nursing (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite:* Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.

### **NSG299. Independent Study Nursing (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ NUTRITION (NTR)

### **NTR135. Human Nutrition (3).**

Principles of human nutrition including nutrient sources and physiological needs throughout the life cycle. Emphasis on role of nutrition in health and disease.

*Three lecture.*

### **NTR296. Internship: Human Nutrition (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite:* Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.

### **NTR299. Independent Study Human Nutrition (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.



# 2010/11

## Yavapai College CATALOG

### COURSE DESCRIPTIONS



A B C D E F G H I J M N P R S T V W

#### ■ **PARALEGAL (LAW)**

##### **LAW100. Introduction to Paralegal Studies (3).**

Introduction to role of the paralegal in the legal system, including the federal and state court systems, ethics, regulation and professional responsibility, legal analysis, research and basic legal concepts. Includes professional development and job search strategies.

*Three lecture.*

##### **LAW101. Legal Ethics and Professional Responsibility (1).**

State and national ethical codes and rules of professional responsibility, ethical dilemmas and methods for researching answers, professionalism, and the unauthorized practice of law.

*One lecture.*

##### **LAW104. Wills, Trusts and Probate (3).**

Critical issues, roles, and legal requirements in estate administration and pleadings.

*Prerequisite: Law 100 and either ENG 101 or ENG 103.*

*Three lecture.*

##### **LAW105. Legal Computer Applications (2).**

Introduction to computer software and software applications used in a law office and the business community. Includes computer research tools, e-mail, application of general office management software to the legal environment, ethical considerations, and law office practice concepts.

*Prerequisite: LAW 100 (may be taken concurrently) and either CSA 130 or CSA 140.*

*Two lecture.*

##### **LAW106. Advanced Legal Computer Applications (2).**

Advanced application of computer software used in the law office and the business community. Includes time and billing, calendaring and docket control, case management, document management, litigation support, computer research tools, and ethical considerations.

*Prerequisite: LAW 105.*

*Two lecture.*

##### **LAW107. Law Office Management (3).**

Processes and standards of law office management including record keeping, timekeeping, billing, calendaring, and docket control. Emphasis on the principles and practices of law office management for manual and automated systems.

*Prerequisite: LAW100 (may be taken concurrently) and CSA140 (may be taken concurrently).*

*Three lecture.*

##### **LAW201. Criminal Law and Procedure (2).**

Fundamentals of criminal law and examination of the criminal court system, criminal investigation and prosecution, rules of evidence, and trial preparation and procedures.

*Prerequisite: LAW 100 and either ENG 101 or ENG 103.*

*Two lecture.*

##### **LAW203. Family Law (3).**

Legal aspects of domestic matters and family relationships. Emphasis on dissolution of marriage, community property, child custody, child support and support calculations, adoptions, guardianships, state involvement in family and parent-child relationships, and statutes relating to families and family relationships.

*Prerequisite: LAW 100 and either ENG 101 or ENG 103.*

*Three lecture.*

##### **LAW206. Contracts (2).**

Legal requirements of corporations, partnerships, LLCs, and sole proprietorships.

*Prerequisite: LAW 100 and either ENG 101 or ENG 103.*

*Two lecture.*

##### **LAW207. Introduction to Legal Nurse Practice and Ethics (3).**

A survey of legal nurse practice and a study of the most important ethical issues facing the medical and legal professions as defined by organizations such as the American Bar Association, the American Medical Association, the American Nurses Association and the American Association of Legal Nurse Consultants. Application of ethical principles to case studies. Analysis of issues including informed consent, euthanasia, assisted suicide, and standards of care. An overview of the legal nurse profession, issues, marketing strategies, and the role of the legal nurse in the litigation process.

*Three lecture.*

## COURSE DESCRIPTIONS

### **LAW208. Business Organizations (2).**

General principles of the law of contracts, negotiable instruments, and sales.

*Prerequisite: LAW 100 and either ENG 101 or ENG 103.*

*Two lecture.*

### **LAW209. Administrative Law (2).**

Laws and procedures relating to powers and controls of agencies which administer governmental services. Agency purposes, procedures, enabling acts, and rights of private parties.

*Prerequisite: LAW 100 and either ENG 101 or ENG 103.*

*Two lecture.*

### **LAW210. Bankruptcy Procedures (2).**

Procedures for individual and business bankruptcy proceedings. Preparation of basic bankruptcy documents and review of creditor/debtor remedies under the bankruptcy laws.

*Prerequisite: LAW 100 and either ENG 101 or ENG 103.*

*Two lecture.*

### **LAW215. Legal Research and Writing I (4).**

Principles and techniques for conducting legal research. Emphasis on sources of law, utilization of primary and secondary sources, and case briefing. Extensive practice in writing research memoranda.

*Prerequisite: LAW 100 and either ENG 101 or ENG 103.*

*Four lecture.*

### **LAW216. Legal Research and Writing II (4).**

Application of research and writing skills in responding to complex legal issues and preparing complex legal documents.

*Prerequisite: LAW 215 and either ENG 101 or ENG 103.*

*Four lecture.*

### **LAW220. Civil Tort Litigation I (3).**

Principles and procedures of civil litigation. Jurisdiction and venue, parties to action, and pleadings. Introduction to drafting of documents required from inception of civil action through the pleading stage, up to trial.

*Prerequisite: LAW 100 and either ENG 101 or ENG 103 and either CSA 130 or CSA 140.*

*Two lecture. Two lab.*

### **LAW221. Civil Tort Litigation II (3).**

Study of the civil litigation process. Includes trial preparation, trial, evidence, and appeal.

*Prerequisite: LAW 220 and either ENG 101 or ENG 103.*

*Two lecture. Two lab.*

### **LAW295. Special Legal Topics (2).**

Introduction to a special legal topic and the role of the paralegal in the critical issues and requirements of the legal specialty area. The legal topic will change each semester. Repeatable for a total of 4 credit hours towards degree/certificate requirements.

*Prerequisite: LAW 100 and either ENG 101 or ENG 103.*

*Two lecture. (Repeatable for a total of 4 credit hours towards degree/certificate requirements.)*

### **LAW 296. Internship: Paralegal Studies (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements.

*Prerequisite: Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **LAW299. Independent Study Paralegal Studies (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ PHARMACY TECHNOLOGY (PHT)

### **PHT130. Introduction to Pharmacy Technology (3).**

Overview of pharmacy history, pharmacy law and ethics, and the role of the pharmacist and pharmacy technician. Includes interpersonal communication skills and customer service skills.

*Prerequisite: AHS 130.*

*Three lecture.*

### **PHT131. Pharmaceutical Calculations (1).**

Fundamentals of mathematical calculation, measurement systems, mathematical conversions, calculating drug dosages, reconstitution of solutions, and interpretation of prescription or medication order.

*Prerequisite: MAT 100 or higher or satisfactory score on mathematics skills assessment. Reading Proficiency.*

*One lecture.*

### **PHT132. Pharmacology I (3).**

Explores relationship between anatomy and physiology, disease states, and drugs affecting the respiratory, integumentary, nervous, cardiovascular and renal systems.

*Prerequisite: AHS 100 and PHT 130 and PHT 131.*

*Corequisite: PHT 134.*

*Three lecture.*



## COURSE DESCRIPTIONS

### **PHT133. Pharmacology II (3).**

Explores the relationship between anatomy and physiology, disease states, and drugs affecting the endocrine, gastrointestinal, reproductive and immune systems, and the eyes, ears, nose and throat.

*Prerequisite:* PHT 132 and PHT 134.

*Corequisite:* PHT 135.

*Three lecture.*

### **PHT134. Pharmacy Practice I (3).**

Basic procedures for preparing and dispensing drugs in hospital and retail settings. Documentation, billing and inventory management.

*Prerequisite:* PHT 130 and PHT 131.

*Corequisite:* PHT 132.

*Three lecture.*

### **PHT135. Pharmacy Practice II (3).**

Advanced procedures for preparing and dispensing drugs in hospital and retail settings. Includes chemotherapeutic, compounded, and intravenous drugs.

*Prerequisite:* PHT 132 and PHT 134.

*Corequisite:* PHT 133.

*Three lecture.*

### **PHT296. Internship: Pharmacy Technician (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite:* Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.



## ■ PHILOSOPHY (PHI)

### **PHI101. Introduction to Philosophy (3).**

Introduction to major philosophical concerns in the history of Western thought, including ethics, social philosophy, logic, epistemology, and philosophy of religion.

*Prerequisite:* Reading Proficiency.

*Three lecture.*

### **PHI103. Introduction to Logic (3).**

Examination of meaning and definition, deduction and induction, fallacies, and the structure and classification of arguments. Exercises in recognizing arguments, informal fallacies, and formal techniques for evaluating deductive arguments.

*Prerequisite:* Reading Proficiency.

*Three lecture.*

### **PHI110. Introduction to Critical Thinking (3).**

Fundamentals of critical thinking, including logic, argument, biases, and assumptions. Application of critical thinking strategies to contemporary issues and practical problem solving.

*Prerequisite:* Reading Proficiency.

*Three lecture.*

### **PHI111. Introduction to Moral and Social Philosophy (3).**

Key concepts and problems in ethics and social/political philosophy. Historic and contemporary readings with application to modern concerns.

*Prerequisite:* Reading Proficiency.

*Three lecture.*

### **PHI122. Science, Religion, and Philosophy (3).**

Exploration of science, religion, and philosophy through historic and contemporary times. Examination of the goals and methods of these disciplines with special emphasis on their interactions and mutual influences. Accent on the Western traditions, with references to others as appropriate.

*Prerequisite:* Reading Proficiency.

*Three lecture.*

### **PHI204. Ethical Issues in Health Care (3).**

Study of selected moral theories and principles with emphasis on application to ethical issues in health care. Integrates values exploration and moral reasoning and decision making.

*Prerequisite:* ENG 101 or ENG 103. Reading Proficiency.

*Three lecture.*

### **PHI205. Religion in the Modern World (3).**

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.

*Prerequisite:* PHI 201

*Three lecture.*



## COURSE DESCRIPTIONS

### **PHI210. Environmental Ethics and Philosophy (3).**

Examination of key thinkers, issues, and various philosophic perspectives about the appropriate relationship of humans to the natural environment through Western history and modern times. Introduction to theoretical and practical dimensions of ecophilosophy.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **PHI245. Introduction to Eastern Philosophy (3).**

Examination of fundamental theories of Indian, Chinese, and Japanese metaphysics, epistemology, ethics, and aesthetics.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

### **PHI296. Internship: Philosophy (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **PHI299. Independent Study Philosophy (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ PHYSICAL EDUCATION (PHE)

### **PHE100A. Aikido (1).**

Traditional Japanese martial art using non-violent self-defense techniques. Emphasis on relaxed movement and mind-body balance.

*Two lab.*

### **PHE100B. Karate (1).**

Fundamentals of karate. Emphasis on self defense techniques and fitness and wellness. Includes individualized progression through degrees/belts.

*Two lab.*

### **PHE100C. Tae Kwon Do (1).**

Fundamental techniques and philosophy of Korean martial art.

*Two lab.*

### **PHE100D. T'ai Chi Chih (1).**

Theory and practice of Tai Chi Chih. Series of slowly performed movements suitable for all ages and fitness levels.

*Two lab.*

### **PHE100E. T'ai Chi Ch'uan (1).**

Tai Chi Chuan, ancient Chinese martial movement art form practiced for health, relaxation, meditation, self-cultivation and self-defense. Wu- family form consisting of 94 postures. System of rounded, fluid and balanced movements, played slowly in a continuous manner. Suitable for all fitness levels.

*Two lab.*

### **PHE100F. Hatha Yoga (1).**

Introduction to Yoga and Meditation. Explore Hatha Yoga, practice breathing exercises, yoga poses and relaxation techniques.

*Two lab.*

### **PHE100G. Intermediate Yoga (1).**

Hatha Yoga to increase strength, flexibility, focusing ability, balance and relaxation.

*Two lab.*

### **PHE100J. Hapkido (1).**

Modern Korean martial art incorporating many styles of martial art techniques. Emphasis on kicks, strikes, joint locks, throws, ground fighting, and weapon techniques.

*Two lab.*

### **PHE 102. Back to Basics (1).**

Fitness training and health-related principles with emphasis on cardio endurance and strength training.

*Two lab.*

### **PHE105. Fitness Workshop (.5).**

Fitness Workshop. Application of fitness principles, adherence strategies and safety principles.

*One lab.*

### **PHE110A. Stretch and Flex (1).**

Flexibility and stretching exercises to improve posture, increase joint flexibility, and reduce stress reactions.

*Two lab.*

### **PHE110C. Pilates, Mat Flex and Ball (1).**

Group exercise activities using stability and medicine balls, flat bands, body bars, mat and floor exercises and Pilates movements. Emphasis on improving core stabilization, strengthening major muscle groups and increasing flexibility.

*Two lab.*

### **PHE110D. Aerobic Kickboxing (1).**

High intensity cardio and muscular strengthening workout. Combination of martial art style Tae Kwon Do with kicking and boxing moves.

*Two lab.*

## COURSE DESCRIPTIONS

### **PHE110E. Cardio Mix (1).**

Aerobic program for all fitness components. Emphasis on cross training activities.

*Two lab.*

### **PHE110G. Soft Aerobics: Low Impact (1).**

Aerobic conditioning program using impact reduction exercises and activities. Emphasis on low intensity cardiorespiratory training, muscular strength and endurance development, flexibility training, balance and functional training.

*Two lab.*

### **PHE110H. Step Aerobics (1).**

Aerobic conditioning using steps. Resistance training for upper-body toning.

*Two lab.*

### **PHE110I. Total Body Conditioning (1).**

Ultimate training program using resistive and balance tools: bars, balls, and bosu balls. Emphasis on core stabilization, muscle sculpting, and flexibility.

*Two lab.*

### **PHE110K. Indoor Cycling (1).**

High intensity cardio training using interval and cross training principles. Emphasis on increasing aerobic capacity and muscular endurance.

*Two lab.*

### **PHE110L. Neuromuscular Integrative Action (NIA) (1).**

Cardiovascular workout blending dynamic power, creative expression, and inner awareness. Emphasis on integrative body movements and play.

*Two lab.*

### **PHE110Q. Zumba (1).**

High energy Latin dance inspired exercise utilizing principles of aerobic, interval and resistance training.

*Two lab.*

### **PHE110R. Pumping Iron (1).**

Weight training choreographed to music using free weights and body bars. Emphasis on muscle definition, strength and endurance. All muscle groups challenged.

*Two lab.*

### **PHE110S. Cardio Core (1).**

High energy class combining a variety of aerobic activities for cardiovascular training coupled with exercises designed to increase core strength.

*Two lab.*

### **PHE120A. Aqua Fit (1).**

Water training program, works all fitness components: Cardiovascular endurance, muscular strength and endurance, and flexibility. All fitness levels, swimmers, and non-swimmers.

*Two lab.*

### **PHE120B. Water Cross Training (1).**

Using water to intensify and diversify fitness training. Variable training methods developing strength and aerobic capacity. Use of water training equipment enhancing range of motion, muscular endurance/strength and aerobic capacity. For all fitness levels, swimmer, and non-swimmers.

*Two lab.*

### **PHE120C. Swimming Fitness (1).**

Swim activities using fitness principles. Emphasis on improving fitness level.

*Two lab.*

### **PHE120D. Beginning Swimming (1).**

Fundamentals of swimming. Emphasis on fundamental stroke techniques, personal life saving skills and water as a conditioning medium. Designed for non-swimmers.

*Two lab.*

### **PHE120F. Warm Water Exercise (1).**

Water exercise for students with conditions requiring warm water.

*Two lab.*

### **PHE130A. Fitness, Machine and Free Weight Training (1).**

Introduction to cardiorespiratory fitness, strength training exercises, and flexibility training.

*Two lab.*



## COURSE DESCRIPTIONS

### **PHE130C. Senior Fitness/Weight Training (1).**

Senior fitness with emphasis on principles and techniques of cardiorespiratory, muscular strength and endurance and flexibility training.

*Two lab.*

### **PHE130E. Sport Enhancement and Conditioning (2).**

Training program targeting athletic performance. Designed for athletes.

*One lecture. Two lab.*

### **PHE130H. Weight Management (2).**

Weight control through exercise and nutrition. Apply principles of nutrition, intuitive eating, cardiorespiratory training and muscular strength/endurance training.

*One lecture. Two lab.*

### **PHE130J. Weight Loss, Nutrition and Health (2).**

Weight loss and health benefits through lifestyle improvements in nutrition and exercise. Emphasis on whole grains, legumes, fruits and vegetables versus the rich American diet. Includes techniques in food preparation and cooking.

*Two lecture.*

### **PHE140A. Beginning Volleyball (1).**

Fundamentals of volleyball. Emphasis on rules, basic offensive and defensive techniques, and tactics.

*Two lab.*

### **PHE140B. Basketball (1).**

Fundamentals of basketball. Emphasis on basic rules, offensive and defensive techniques and tactics and sportsmanship.

*Two lab.*

### **PHE140C. Softball (1).**

Fundamentals of softball. Emphasis on rules, offensive and defensive techniques and tactics.

*Two lab.*

### **PHE140D. Bowling (1).**

Fundamentals of bowling. Emphasis on techniques, scoring, etiquette and handicapping.

*Two lab.*

### **PHE140E. Badminton (1).**

Fundamentals of badminton. Emphasis on footwork, stroke production, rules and tactics.

*Two lab.*

### **PHE140F. Golf (1).**

Fundamentals of golf. Emphasis on pre-swing routine, stroke production and course management.

*Two lab.*

### **PHE140G. Tennis (1).**

Fundamentals of tennis. Emphasis on basic stroke production, rules and tactics.

*Two lab.*

### **PHE140H. Racquetball (1).**

Fundamentals of racquetball. Emphasis on stroke production, rules, tactics, scoring and safety.

*Two lab.*

### **PHE140K. Squash (The Game) (1).**

Fundamentals of squash. Emphasis on skills, tactics, shots, rules, history and exercise.

*Two lab.*

### **PHE140L. Cardio Tennis (1).**

Active cardio program using tennis as a medium.

*Two lab.*

### **PHE140M. Beginning Jogging (1).**

Jogging styles and exercise programs. Includes equipment selection and injury prevention.

*Two lab.*

### **PHE150. Prevention of Athletic Injuries and Emergency Care (3).**

Introduction to prevention of athletic injuries and conditions. Includes use of protective equipment, taping, nutrition, exercise, First Aid principles, legal implications, research and practical considerations.

*Three lecture.*

### **PHE151. Introduction to Exercise Science and Physical Education (3).**

The disciplines and professions associated with exercise science and physical education including an overview of historical philosophical foundations.

*Three lecture.*

### **PHE152. Personal Health and Wellness (3).**

Explores issues related to health and wellness. Emphasis on current topics and individual choices affected by psychological, sociological and environmental factors.

*Three lecture.*

## COURSE DESCRIPTIONS

### **PHE153. First Aid/CPR/AED and Safety (2).**

Instruction, theory and practice in first aid/CPR/AED and safety. Upon successful completion, students receive certification from the American Heart Association.

*Two lecture.*

### **PHE153A. American Red Cross CPR (1).**

Basic Cardiopulmonary Resuscitation CPR. Emphasis on skills for adult, child and infant CPR including Automatic External Defibrillator. Preparation for the American Red Cross Certification requirements.

*One lecture.*

### **PHE154. Theory of Coaching (3).**

Theory and techniques of coaching competitive sports.

*Three lecture.*

### **PHE155. Sport Safety Training (2).**

Principles of First Aid and Safety specific to injuries and conditions resulting from sports participation. Emphasis on recognition and basic care of common sport injuries.

*Two lecture.*

### **PHE200F. The Path of Yoga (3).**

Introduction to Yoga philosophy, history, Ayurveda, and meditation. Asana practice to complement mind-body emphasis.

*Two lecture. Two lab.*

### **PHE200G. Ayurveda and Yoga (2).**

Introduction to Ayurveda (Science of Life) and relationship to Hatha Yoga practice.

*One lecture. Two lab.*

### **PHE220E. Competitive Swimming (1).**

Fundamentals of competitive swimming. Emphasis on training for competition.

*Two lab.*

### **PHE228. Lifeguard Training (2).**

Lifeguarding techniques. Meets American Red Cross standards.

*Two lecture.*

### **PHE229. Water Safety Instructor (2).**

Training to teach courses in the American Red Cross Swimming and Water Safety Program.

*Prerequisite: Minimum of 16 years old and pass swim test.*

*One lecture. Two lab.*

### **PHE230B. Advanced Weight Training (1).**

Resistive exercises for specific muscles and muscle groups. Emphasis on program design, implementation and evaluation.

*Prerequisite: PHE 130A.*

*Two lab.*

### **PHE240A. Advanced Volleyball (1).**

Advanced and fundamentals of volleyball. Emphasis on advanced tactics and skills.

*Two lab.*

### **PHE251B. Integrated and Applied Exercise Sciences (2).**

Study of Exercise Sciences and related topics as they impact exercise. Emphasis on anatomy, physiology, kinesiology, and nutrition. Designed for students preparing to become personal trainers, fitness instructors, coaches or Physical Education majors.

*Two lecture.*

### **PHE296. Internship: Physical Education (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **PHE299. Independent Study Physical Education (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ PHYSICS (PHY)

### **PHY100. Introduction to Astronomy (4).**

Cycles of the sky, astronomical observations, history of astronomy, gravitation, light, optical instruments, stellar evolution and classification, galaxies, cosmological theories, survey of the solar system, and life in the universe.

*Prerequisite: Reading Proficiency.*

*Three lecture. three lab.*

### **PHY140. The Physical World (4).**

Concepts and methods of physics. A survey of physics emphasizing applications of physics to modern life.

*Prerequisite: MAT 092 or MAT 100 or a grade of "C" or above in high school algebra. Reading Proficiency.*

*Three lecture. Three lab.*

### **PHY141. General Physics I (4).**

Topics include: time and motion studies, forces on stationary and moving objects, waves and sound, heat and energy. Designed for architecture, forestry, pre-med, pre-vet, pharmacy and education students.

*Prerequisite: MAT 187 (Preferred) or MAT 152 and MAT 183.*

*Reading Proficiency.*

*Three lecture. Three lab.*

## COURSE DESCRIPTIONS

### **PHY142. General Physics II (4).**

Electricity, magnetism, light, physical optics, geometric optics, and atomic structure. Designed for pre-med, pre-vet, and pharmacy students.

*Prerequisite: PHY 141. Reading Proficiency.*

*Three lecture. Three lab.*

### **PHY150. Physics for Scientists and Engineers I (4).**

Principles of mechanics. Kinematics, dynamics, systems of particles, equilibrium, fluids, gravitation, and oscillations, with calculus applications. For engineering and physics majors.

*Prerequisite: MAT 220. One year of high school physics or PHY 141 /142 is strongly recommended. Reading Proficiency.*

*Three lecture. Three lab.*

### **PHY151. Physics for Scientists and Engineers II (4).**

Waves and sound, electromagnetism, circuits, electromagnetic waves, and Maxwell's equations, with calculus applications. For engineering and physics majors.

*Prerequisite: MAT 230 and PHY 150. Reading Proficiency.*

*Three lecture. Three lab.*

### **PHY250. Physics for Scientists and Engineers III (4).**

Thermodynamics, physical and geometrical optics, relativity, atomic and nuclear structure, basic concepts of quantum mechanics, with calculus applications. For engineers and physics majors.

*Prerequisite: MAT 241 and PHY 151. Reading Proficiency.*

*Three lecture. Three lab.*

### **PHY296. Internship: Physics (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **PHY299. Independent Study Physics (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ POLICE CERTIFICATION PROGRAM (PCP)

### **PCP255. Intensive Police Certification (36).**

Study of criminal investigations, police community relations, traffic accident investigation, introduction to administration of justice, law, legal principles, patrol procedures, vehicle operations, report and technical writing, physical conditioning, defense tactics, impact weapons, firearm proficiency and safety, first aid, fundamentals of hazardous materials, stress management and use of force. This course contains all of the Arizona Peace Officers Standards and Training curriculum required for peace officer certification.

*Prerequisite: Student must be appointed by an Arizona law enforcement agency.*

*Thirty-Two lecture. Twelve lab.*

### **PCP296. Internship: Police Certification Program (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **PCP299. Independent Study Police Certification Program (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.





## COURSE DESCRIPTIONS

### ■ POLITICAL SCIENCE (POS)

#### **POS110. American National Government (3).**

Study of the United States Constitution and government. Emphasis on the 1760-1790 period in US history. Includes organization and function of the legislative, executive and judicial branches of government.

*Three lecture.*

#### **POS221. Arizona Constitution and Government (1).**

Survey of Arizona Government and Constitution designed to meet the requirements for teaching certification.

*One lecture.*

#### **POS222. National Constitution and Government (2).**

Examine the United States Constitution and government. Designed to meet requirements for teacher certification.

*Two lecture.*

#### **POS240. Indian Law and Government (3).**

Traces the evolution of traditional and modern Indian systems of law and government from colonial times to present. Modern tribal government and major problems faced by Indian governments today are studied.

*Three lecture.*

#### **POS296. Internship: Political Science (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

#### **POS299. Independent Study Political Science (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

### ■ PSYCHOLOGY (PSY)

#### **PSY101. Introductory Psychology (3).**

Introduction to psychology through such topics as the scientific method in psychology, survey of different fields in psychology, heredity and environment, intelligence, emotions, motivation, nervous system, and learning processes.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **PSY132. Cross Cultural Psychology (3).**

Impact of culture on the study of psychology. The role of culture in perceptual and cognition processes, human development, and social behavior. Includes issues such as intergroup relations, ethnocentrism, gender, personality, emotion, language, and communication.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **PSY156. End of Life Issues and Options (1).**

Examination of issues about death and dying in relation to community resources and the current health care system. Considers legal, ethical, cultural and spiritual issues; communication; symptom and pain management; grief and bereavement.

*One lecture.*

#### **PSY172. Introduction to Parenting (3).**

Study of development and maintenance of healthy parent-child relationships. Emphasis on fostering a child's emotional maturity through positive development in areas of awareness, relating, competence and integrity.

*Three lecture.*

#### **PSY175. Counseling Skills (3).**

Principles and practices which underlie the effective and ethical use of the helping relationship in human services.

*Three lecture.*

#### **PSY210. Brain and Behavior (3).**

Investigation of the human brain and how it affects our behavior. Includes optical illusions, hallucinations, phantom limb, biological drives and the ability to remember and forget. Observable behavior in mental disorders such as schizophrenia and anxiety, the chemical processes in the brain, and the effects of illegal and prescription drugs on the human body and its various systems.

*Prerequisite: PSY 101.*

*Three lecture.*



## COURSE DESCRIPTIONS

### **PSY220. Social Service Case Management (3).**

Fundamental principles and mechanics of case management. Includes various models, processes and functions, and historical context. Emphasis on development of interpersonal skills.

*Prerequisite: PSY101 or PSY175.*

*Three lecture.*

### **PSY/SOC 230. Introduction to Statistics in the Social and Behavioral Sciences (3).**

Basic concepts of statistical analysis and design in social and behavioral science research.

*Prerequisite: MAT 142 or MAT 152 or satisfactory score on mathematics skills assessment.*

*Three lecture.*

### **PSY232. Psychology of Personal Growth (3).**

Principles and practices of mental health and personal adjustment as they relate to personality development, growth and deterioration.

*Three lecture.*

### **PSY/ECE234. Child Growth and Development (3).**

Development of the child. Includes genetic, prenatal, birth and postnatal influences. Emphasis on physical, cognitive and social-emotional development and theories. Includes positive communication with children.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **PSY236. Psychology of Women (3).**

A developmental and topical approach to the impact of gender on women's lives, personalities, abilities, relationships, sexuality, physical and mental health.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **PSY240. Personality Development (3).**

Study of normal personality development with emphasis on the analysis of classic and contemporary theories of personality structure and dynamics.

*Prerequisite: PSY 101 or PSY 232. Reading Proficiency.*

*Three lecture.*

### **PSY241. Substance Abuse (3).**

Study of the physical, social, and psychological effects of substance abuse. The effects of substance abuse on the criminal justice system.

*Three lecture.*

### **PSY245. Human Growth and Development (3).**

Study of physical, intellectual, moral, emotional, personality, and social development of the human being, beginning with conception and continuing through childhood, adolescence, adulthood, old age, and dying. Emphasis on quantitative and qualitative ways people change throughout the life span and factors which contribute to human diversity as well as to individual uniqueness. Research methods appropriate to the study of human development are also considered.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

### **PSY250. Social Psychology (3).**

The study of how our thoughts, feelings, and actions are affected by our social environment. Emphasis on prejudice, conformity, altruism, interpersonal interaction, and the influence of the media.

*Prerequisite: PSY 101. Reading Proficiency.*

*Three lecture.*

### **PSY262. Crisis and Trauma Intervention (3).**

Impact of critical and traumatic events on daily and long-term psychological and physical functioning. Emphasis on intervention strategies.

*Prerequisite: PSY101 or PSY175.*

*Three lecture.*

### **PSY266. Abnormal Psychology (3).**

Behavioral disorders including current terminology, theories, and research. Emphasis on the characteristics, causes and treatment of abnormal behavior.

*Prerequisite: PSY 101.*

*Three lecture.*

### **PSY270. Dream Interpretation (3).**

Introduction to use of dream interpretation as a means to explore internal psychological processes. Examination of theories and the application of each theory as a therapeutic tool. Comprehension of the dream as a personal message that can be interpreted through understanding and application of dream symbolism.

*Three lecture.*

### **PSY275. Group Skills and Processes (3)**

Application of concepts and techniques appropriate to the stages of a group's development. Emphasis on a group process in action.

*Prerequisite: PSY175.*

*Three lecture.*

# 2010/11

## Yavapai College CATALOG

### COURSE DESCRIPTIONS



#### A B C D E F G H I J M N P R S T V W

#### **PSY/SOC277. Human Sexuality (3).**

Examination of the physical, social and cultural contributions to human sexuality. Examination of the facts and myths, current literature, and changing mores regarding human sexuality.

*Prerequisite: PSY 101 or SOC 101. Reading Proficiency.*

*Three lecture.*

#### **PSY/SOC290. Research Methods (4).**

Planning, execution, analysis, and written reporting of psychological research. Surveys the literature, procedures, and instruments in representative areas of psychological research.

*Prerequisite: PSY 101.*

*Four lecture.*

#### **PSY296. Internship: Psychology (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

#### **PSY299. Independent Study Psychology (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

### ■ **RADIOLOGIC TECHNOLOGY (RAD)**

#### **RAD 100. Foundations of Radiologic Science (2).**

Foundations in radiography and the practitioner's role in the health care delivery system. Includes an examination of the healthcare establishment, radiography education and related organizational topics, ethical and legal considerations, basic radiation protection and patient care principles.

*Prerequisite: Admission to the Radiology Technology Program. Reading Proficiency.*

*Co-requisite: RAD 110 and RAD 120*

*Two lecture.*

#### **RAD 110. Radiographic Positioning and Image Analysis I (4).**

Fundamentals of radiographic positioning for the upper and lower extremities, shoulder girdle, chest, pelvis, pelvic girdle, abdomen, cranium and basic mobile radiography.

*Co-requisite: RAD 100 and RAD 120*

*Two lecture. Six lab.*

#### **RAD 120. Radiographic Technique I (3).**

Fundamentals of image production, processing, film imaging with related accessories and image analysis based on technical imaging standards.

*Co-requisite: RAD 100 and RAD 110*

*Three lecture.*

#### **RAD 130. Radiation Physics I (3).**

Radiation production and characteristics. Includes the basics of atomic structure, concepts related to radiation and photon interactions with matter.

*Prerequisite: RAD 120.*

*Co-requisite: RAD 140 and RAD150 and RAD 160.*

*Three lecture.*

#### **RAD 140. Radiographic Positioning and Image Analysis II (4).**

Fundamentals of radiographic positioning of the vertebral column and bony thorax. Emphasis on contrast studies of urinary and digestive systems, and imaging during trauma and surgery. Includes procedural considerations for arthrography, myelography, venography and age specific imaging.

*Prerequisite: RAD 120.*

*Co-requisite: RAD 130 and RAD150 and RAD 160.*

*Two lecture. Six lab.*

#### **RAD 150. Radiographic Technique II (3).**

Principles and operation of digital imaging systems with an emphasis on image acquisition, display, archiving and retrieval. Includes principles of digital system quality assurance and maintenance.

*Prerequisite: RAD 120.*

*Co-requisite: RAD 130 and RAD 140 and RAD 160.*

*Three lecture.*

## COURSE DESCRIPTIONS

### **RAD 160. Radiology Clinical Education I (3).**

Orientation to the clinical environment. Supervised clinical assignments focus on a progressive structure of observation, assistance and completion of a semester benchmark of selected radiographic competencies. Competency based experiences support the acquisition of elementary patient care and radiographic positioning skills.

*Prerequisite:* RAD 120.

*Co-requisite:* RAD 130 and RAD 140 and RAD 150.

*Nine lab.*

### **RAD 170. Radiology Patient Care (2).**

Concepts of patient care with consideration for the physical and psychological needs of the patient and family. Includes routine and emergency patient care procedures, infection control procedures and patient education.

*Prerequisite:* RAD 160.

*Co-requisite:* RAD 180 and RAD 220.

*Two lecture.*

### **RAD 180. Radiology Clinical Education II (3).**

Reinforcement of radiographic skills and the addition of new competencies toward completion of a semester benchmark of radiographic competencies. Supervised clinical assignments emphasize work in the clinical environment and performance of radiographic competencies. Competency based experiences support acquisition of intermediate patient care and radiographic positioning skills.

*Prerequisite:* RAD 160.

*Co-requisite:* RAD 170 and RAD 220.

*Nine lab.*

### **RAD 200. Radiology Clinical Education III (7).**

Advancement of radiographic skills and the addition of new competencies to complete a semester benchmark of selected competencies. Advanced organizational skills, speed and accuracy in the performance of clinical competencies. Competency based experiences support the acquisition of limited working proficiency in patient care and radiographic positioning skills.

*Prerequisite:* RAD 180.

*Twenty-one lab.*

### **RAD 210. Radiation Physics II (3).**

Basics of imaging systems and quality control.

*Prerequisite:* RAD 200.

*Co-requisite:* RAD 230 and RAD 240.

*Three lecture.*

### **RAD 220. Radiobiology and Radiation Protection (3).**

Principles of the interaction of ionizing radiation and biological systems. Includes concepts of radiation protection.

*Prerequisite:* RAD 160.

*Co-requisite:* RAD 170 and RAD 180.

*Three lecture.*

### **RAD 230. Radiology Pharmacology (2).**

Basic concepts of radiology pharmacology. Includes the techniques of venipuncture and administration of diagnostic contrast agents and intravenous medications.

*Prerequisite:* RAD 200.

*Co-requisite:* RAD 210 and RAD 240.

*Two lecture.*

### **RAD 240. Radiology Clinical Education IV (4).**

Refinement of advanced skills and completion of a semester benchmark of selected radiographic competencies. Supervised clinical assignments focus on progressively increasing levels of independent judgment in the performance of clinical competencies. Competency based experiences support the acquisition of advanced patient care and radiographic positioning skills.

*Prerequisite:* RAD 200.

*Co-requisite:* RAD 210 and RAD 230.

*Twelve lab.*

### **RAD 250. Radiographic Pathology (2).**

Concepts of disease and the etiology of selected pathologic conditions. Emphasis on the radiographic appearance of various diseases and the influence of pathologic conditions on exposure factor selection.

*Prerequisite:* RAD 240.

*Co-requisite:* RAD 260 and RAD 270 and RAD 280.

*Two lecture.*

### **RAD 260. Advanced Imaging Systems (3).**

Overview of the various fields of medical imaging with a focus on Computed Tomography.

*Prerequisite:* RAD 240.

*Co-requisite:* RAD 250 and RAD 270 and RAD 280.

*Three lecture.*

### **RAD 270. Radiology Registry Review (3).**

Review of standard subject materials in preparation for the American Registry of Radiologic Technologists (ARRT) Examination.

*Prerequisite:* RAD 240.

*Co-requisite:* RAD 250 and RAD 260 and RAD 280.

*Three lecture.*

## COURSE DESCRIPTIONS

### **RAD 280. Radiology Clinical Education V (4).**

Completion of program competencies and observational experiences in advanced imaging modalities. Supervised clinical assignments to achieve mastery of radiographic positioning and patient care skills outlined in the Competency Requirements for Primary Certification of the American Registry of Radiologic Technologists (AART). Skills are refined in preparation to join the workforce as an entry-level practitioner.

*Prerequisite:* RAD 240.

*Co-requisite:* RAD 250 and RAD 260 and RAD 270.

*Twelve lab.*

## ■ REAL ESTATE (RES)

### **RES100. Rental Property Management (2).**

Property management policies, leases, rental agreements, evictions, court proceedings, landlord/tenant laws, city/state taxes, security/utility deposits and furnished/unfurnished premises.

*Two lecture.*

### **RES101. Real Estate Assistant (1).**

Licensed and unlicensed requirements and the knowledge necessary in the selection and functions of a qualified assistant.

*One lecture.*

**RES103. Principles of Real Estate (6).** Introduction to real estate principles and the real estate industry. Includes Arizona Real Estate Code, government restrictions, contracts, financing, environmental considerations, property management, agency law, and ethics. The Arizona Department of Real Estate accepts this course as satisfying the 90 hour pre-licensing educational requirement.

*Six lecture.*

### **RES110. E-Real Estate (1).**

Use of up-to-date technology in the real estate office. Emphasis on use of Multiple Listing Service (MLS) software, E-mail, and web-based resources.

*Prerequisite:* Must have Real Estate License.

*One lecture.*

### **RES131. Contract Writing (.5).**

Line by line review of the Arizona Department of Real Estate approved residential real estate purchase contract. Focus on contract law, accounting, contingency time frames, requirements for a valid contract, and contract management.

*Prerequisite:* RES 103.

*One-half lecture.*

### **RES150. Basic Real Estate Appraising (3).**

Theory and practical application of the appraisal process. Forces and factors affecting value, the concept of highest and best use, how to write short form and narrative reports, and how to support and defend appraisal reports are included. Prepares students for the NAIFA Member Examination.

*Three lecture.*

### **RES160. Uniform Standards of Appraising (U.S.P.A.P.) (3).**

The Uniform Standards of Professional Appraisal Practice as defined by the Appraisal Foundation and mandated by the State of Arizona for certified professional appraisers. Prepares students for the NAIFA Examination.

*Prerequisite:* RES 150.

*Three lecture.*

### **RES201. Real Estate Law (3).**

Overview of legal requirements and the documents and forms relating to real property transactions. Real estate purchase and sale, various methods of holding title to real property, mortgages, lease agreements, liens and declarations of homestead.

*Three lecture.*

### **RES296. Internship: Real Estate (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite:* Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.

### **RES299. Independent Study Real Estate (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ RECREATION MANAGEMENT (REC)

### **REC102. Introduction to Wildlife Tracking (1).**

Introduction to wildlife tracking in various geographic zones. Emphasis on track identification.

*Two lab.*

### **REC110. Backcountry Skills (2).**

Introduction to outdoor skills related to camping and hiking.

*Four lab.*



## COURSE DESCRIPTIONS

### **REC111. Backcountry Navigation and Orienteering (1).**

Introduction to orienteering. Interpret different scales of maps and use of compasses and GPS.

*One lecture.*

### **REC112. Hiking Fitness (1).**

Hiking to develop and maintain physical fitness.

*Two lab.*

### **REC113. Backpacking (1).**

Techniques for efficient backcountry hiking. Skills for the beginning backpacker; includes packing and travel tactics, safety and low impact camping. Must possess adequate physical abilities for backcountry travel with a backpack. Overnight trips required.

*Two lab.*

### **REC114. Mountain Biking (1).**

Principles and practice of mountain biking in the local area. Emphasis on recreational and fitness components. Basic ability to ride a bicycle. Mountain bike and helmet required.

*Two lab.*

### **REC115. Introduction to Rock Climbing (1).**

Principles and practice of rock climbing in the local area. Emphasis on climbing equipment, tying knots, climbing technique, rappelling and belaying.

*Prerequisite: Must be at least 16 years of age to enroll.*

*Two lab.*

### **REC120. Introduction to Recreation Management (3).**

History, philosophy, and value of recreation and leisure in the quality of life. Explore the foundations of recreation, leisure, and play from social, psychological, cultural, political and economic perspectives.

*Three lecture.*

### **REC130. Scuba Diving (1).**

Fundamentals of scuba diving. Emphasis on dive theory, confined water and open water diving.

*Two lab.*

### **REC131. Beginning Kayaking (1).**

Fundamentals of kayaking. Emphasis on safe entry and exit, paddle strokes, self and assisted rescue and rolling. Must possess physical fitness level for sustained periods of immersion and strong swimming ability.

*Two lab.*

### **REC140. Aboriginal Living Skills (2).**

Introduction to Southwestern primitive skills. Exploring fire creating with sticks, making and using basic stone tools, building primitive shelters, using plant fibers for rope and other utilitarian utensils.

*One lecture. Two lab.*

### **REC141. Winter Survival Skills (2).**

Adapting to cold weather emergencies using winter survival kits, cold weather clothing systems, fire lighting techniques, shelter building and signaling for rescue.

*One lecture. Two lab.*

### **REC142. Outdoor Survival Skills (2).**

Adapting to outdoor emergencies using modern fire lighting techniques, natural shelter construction, locating and disinfecting water and signaling for rescue.

*One lecture. Two lab.*

### **REC143. Outdoor Adventure Preparation (2).**

Fundamentals of adventure travel preparation.

*Two lecture.*

### **REC145. Wilderness Advanced First Aid (2).**

Principles and skills to make critical first aid and evacuation decisions and take appropriate action in remote locations where medical assistance is more than one hour away.

*Two lecture.*

### **REC213. Intermediate Backpacking (2).**

Application of techniques and skills for extended backpacking travel. Must possess adequate physical abilities for carrying a backpack over rough terrain.

*Four lab.*

## ■ RELIGIOUS STUDIES (REL)

### **REL201. Comparative Religions (3).**

The world's religions from East and West, both old and new. Focus on differing religious/philosophical conceptual frameworks. Nonliterate and primal religions, Hinduism, Buddhism, Confucianism, Taoism, Japanese religions, Judaism, Christianity, Islam, Baha'i and more recent religions.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

## COURSE DESCRIPTIONS

### **REL273. Introduction to Jewish Studies (3).**

Dimensions and concerns of Jewish civilization historically and in contemporary times. Continuities and discontinuities, secular and religious expressions of Jewish culture, concepts, and ideals; sense of human place, purpose, communal and personal life; influence of Jewish thought on other religious and secular cultures; modern concepts and challenges.

*Prerequisite: ENG 101 or ENG 103. Reading Proficiency.*

*Three lecture.*

## ■ RESIDENTIAL BUILDING TECHNOLOGY (RBT)

### **RBT101. Trade Skills I (7).**

Introduction to some of the primary trades associated with residential construction. Includes carpentry, concrete, masonry, roofing and drywall.

*Prerequisite: RBT 111 and RBT 112.*

*Two lecture. Ten lab.*

### **RBT102. Trade Skills II (7).**

Primary trade skills associated with residential construction. Includes reinforcement of framing, concrete, masonry, roofing and drywall techniques as well as an introduction to electrical wiring and trim carpentry.

*Prerequisite: RBT 101 and RBT 116 (may be taken concurrently) and RBT 122 (may be taken concurrently).*

*Two lecture. Ten lab.*

### **RBT103. Basic Home Remodeling (3).**

Basic remodeling from design to completion. Everything to design, permit, contract, manage and construct small, residential remodels. Field trips required.

*Two lecture. Three lab.*

### **RBT105. Be Your Own Contractor (3).**

Maximize your building experience while minimizing your anguish. From permitting to completion, including site and house selections, choosing subs and suppliers, estimating and scheduling the entire project.

*Three lecture.*

### **RBT110. Residential Building I (7).**

Progressive and innovative residential building for the 21st century. Includes the use of building materials, systems, and technologies to build healthy, safe, durable, comfortable, environmentally responsive houses.

*Prerequisite: RBT 102.*

*Two lecture. Ten lab.*

### **RBT111. Residential Technology I (4).**

Layout a building, rough-in utilities, and select building materials, systems and technologies using the whole systems approach.

*Four lecture.*

### **RBT112. Construction Drawings and Documents (3).**

Reading and understanding of residential construction documents including architectural plans, specifications, and construction working drawings.

*Three lecture.*

### **RBT114. AutoCAD I (3).**

Introduction to theory and application of computer-aided drafting for production of residential working drawings.

*Two lecture. Three lab.*

### **RBT 115. Advanced Plan Reading (2).**

Advancement of plan reading skills. Topics include site plan issues, use of GIS system, beam, floor and point load calculations, and Braced Wall Panels.

*Prerequisite: RBT 112.*

*Two lecture.*

### **RBT 116. Building Inspector Fundamentals (1).**

Overview of the current International Residential Code (IRC) and the International Energy Conservation Code (IECC). Emphasis on code understanding and interpretation in preparation for taking an entry-level building inspectors exam.

*Prerequisite: RBT 112.*

*One lecture.*

### **RBT121. Residential Building II (7).**

Progressive and innovative residential building for the 21st century. Includes the use of building materials, systems and technologies to build healthy, safe, durable, comfortable, environmentally responsive houses from dry-in to completion.

*Prerequisite: RBT 110.*

*Two lecture. Ten lab.*

### **RBT122. Residential Technology II (4).**

Interior and exterior residential building finish processes beyond rough framing and dry-in. Emphasis on the construction process and the responsibilities of each building trade/subcontractor. Integration of current building-science principles into mainstream residential construction practices.

*Four lecture.*

## COURSE DESCRIPTIONS

### **RBT123. Estimating and Bidding (3).**

Fundamental principles and practices of residential construction estimating and bidding. Includes reading working drawings and written specifications to produce material quantity take-offs, estimate labor time and costs, and assess overhead costs and profit margins. Emphasis is on computer-assisted cost estimating.

*Prerequisite: RBT 116.*

*Three lecture.*

### **RBT126. AutoCAD II (3).**

Advanced theory and application of computer-aided drafting for production of residential working drawings. Emphasis on using AutoCAD for advanced 2-dimensional design of site, foundation, floor and roof plans, elevations, building sections, and other working drawing details.

*Prerequisite: RBT 114.*

*Two lecture. Three lab.*

### **RBT131. International Residential Code (3).**

Overview of the regulations that govern the safety of residential construction. Using the International Residential Code and the International Energy Code (2006) as the basis for understanding building safety requirements. Includes the design, construction, use, occupancy, and location of residential dwellings.

*Three lecture.*

### **RBT141. Introduction to Land Survey and Construction Layout (3).**

Basic land survey theory and instrument operation and setup. Emphasis on plan reading for the placement of boundary markers and layout staking for construction of public works infrastructure, residential housing and commercial site development.

*Two lecture. Two lab.*

### **RBT151. Construction Contracting and Company Management (3).**

Residential construction business techniques, skills, and conceptual tools for running an efficient and profitable construction business. Intended for future contractors, construction foremen, job supervisors, and project managers in residential construction.

*Three lecture.*

### **RBT152. Project Management and Scheduling (3).**

Project management to achieve consistent construction project success. Includes challenges of tight budgets, contracted deadlines, defined resources, and personnel management on residential construction projects. Use of computer project scheduling tools to create bar charts and schedules.

*Prerequisite: RBT 153.*

*Three lecture.*

### **RBT153. Residential Construction Supervision (2).**

Residential construction supervision techniques, skills, and conceptual tools for running efficient and profitable building projects.

*Prerequisite: RBT 111 and RBT 116 and RBT 122.*

*Two lecture.*

### **RBT161. Construction Business Management (3).**

Fundamentals of business management for Arizona contractor license applicants. Preparation for the Arizona Registrar of Contractor's business management examination, including contract law, business ownership types, accounting fundamentals, employer obligations and business math.

*Three lecture.*

### **RBT231. Solar and Renewable Energy (3).**

Integration of solar and renewable energy into a "whole house system" design. Passive solar design including how to conserve energy and utilize renewable energy sources by responding to the local climate. Incorporating active solar, wind and geothermal technologies to generate power and improve energy efficiency.

*Three lecture.*

### **RBT232. Sustainable Design/Green Building (3).**

Merging sustainable design principles and green building technologies into mainstream residential construction practices. Principles and practices to reduce negative environmental impacts on local and global scales while simultaneously improving building performance, health and comfort of the occupants.

*Three lecture.*

### **RBT233. Alternative Building Materials and Design (3).**

Survey of alternative designs, products, and methods of construction with an emphasis on efficient use of space, materials, and energy. Mainstream building designs, materials, systems, technologies, and methods of residential construction. Includes environmentally responsive design and building practices.

*Two lecture. Three lab.*

### **RBT233. Alternative Building Materials and Design (3).**

Survey of alternative designs, products, and methods of construction with an emphasis on efficient use of space, materials, and energy. Mainstream building designs, materials, systems, technologies, and methods of residential construction. Includes environmentally responsive design and building practices.

*Two lecture. Three lab.*

## COURSE DESCRIPTIONS

### **RBT234. Solar Photovoltaic Systems and Installation (3).**

Basics of solar photovoltaic (PV) power systems and their installation. Includes an introduction to a variety of residential and commercial solar systems encountered in the industry. Successful completion of course qualifies the student to take the North American Board of Certified Energy Practitioners' (NABCEP) Entry Level Certificate of Knowledge.

*Two lecture. Two lab.*

### **RBT236. Solar Thermal Hot Water Design and Installation (2).**

Designed for those who currently are, or plan to be, employed in the solar hot water industry. Emphasis on the basics of installing code compliant solar hot water systems. Includes design criteria, installation guidelines, safety procedures, maintenance, and legal considerations of solar hot water heating systems.

*One lecture. Two lab.*

### **RBT237. Solar Electricity (3).**

Fundamental principles of electricity, the National Electric Code (NEC) pertaining to installation of photovoltaic (PV) systems, PV electrical safety, and conduit bending and installation.

*Two lecture. Two lab.*

### **RBT238. Wind Power Turbine Design and Installation (3).**

Designed for those interested in becoming wind turbine installers and technicians. Includes site evaluations, fundamental design principles to maximize energy performance, basic electricity generation, and installation procedures.

*Two lecture. Two lab.*

### **RBT240. Passive Solar Design (3).**

Design and building strategies to collect and use energy from the sun. Emphasis on reducing purchased energy while maintaining a comfortable, healthy and pleasing indoor environment.

*Three lecture.*

### **RBT241. Energy Efficient Building and Design (3).**

Optimizing energy efficiency using the "systems approach" to residential building and design. Includes air leakage and building-envelope tightness, insulation, ventilation, indoor air quality, energy efficiency, and comfort.

*Three lecture.*

### **RBT242. Weatherization for New and Existing Buildings (3).**

Improving the energy efficiency, health, comfort and safety of new and existing homes. Includes energy audits, diagnostics, commissioning, certification, computerized energy modeling, and weatherization strategies.

*Three lecture.*

### **RBT243. Energy Auditor (3).**

Designed for the next generation of residential energy auditors and designers. Includes the review of new construction drawings, inspection of existing homes, and utilization of energy analysis software programs to determine projected future energy use or performance improvements. Use of software programs REM/Design, Energy Gauge, and Energy-10.

*Two lecture. Two lab.*

### **RBT244. Building Analyst Professional (3).**

Designed for those wanting to become home improvement professionals, emphasis is placed on comprehensive inspections and diagnostic analyses of houses using state-of-the-art diagnostic tools. Analyses include evaluation and documentation of building shells, assessment of the efficiency and safety of mechanical systems, and recording the homes' base load energy use. Preparation for the BPI exam.

*Two lecture. Two lab.*

### **RBT296. Internship: Construction and Building Technology (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **RBT299. Independent Study Construction and Building Technology (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ RUSSIAN (RUS)

### **RUS131. Conversational Russian (3).**

Fundamentals of speaking and listening skills in Russian. Introduction to the culture of the Russian-speaking world.

*Three lecture.*

### **RUS132. Conversational Russian II (3).**

Development of speaking and listening skills in Russian at the novice level. Culture of the Russian-speaking world.

*Prerequisite: RUS 131.*

*Three lecture.*

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## Yavapai College CATALOG

### COURSE DESCRIPTIONS



A B C D E F G H I J M N P R S T V W

#### ■ SMALL BUSINESS ENTREPRENEURSHIP (SBE)

##### **SBE201. Small Business Entrepreneurship (1).**

Analysis of the practical aspects of creating and maintaining a small business. Emphasis on the functions of management, leadership, and entrepreneurship, and the necessity of all three skill sets in order to achieve sustained market success.

*One lecture.*

##### **SBE202. Small Business Marketing (1).**

Analysis of modern marketing techniques as applied to a small business environment.

*One lecture.*

##### **SBE203. Small Business Accounting Principles (1).**

Interpretation of accounting statements and significance to the success or failure of business. How to read financial statements and what they mean in regard to the income statement, balance sheet, profit and loss statement, cash flow and inventory.

*One lecture.*

##### **SBE204. Small Business Accounting Systems (1).**

Review of manual and computer assisted accounting system options for small business management. Identify small business accounting needs and select an appropriate computer-assisted accounting software solution.

*Prerequisite: SBE 203.*

*One lecture.*

##### **SBE205. Small Business Finance (1).**

Methods to raise capital for an existing or start-up entrepreneurial business.

*Prerequisite: SBE 203.*

*One lecture.*

##### **SBE206. Small Business Advertising and Sales (1).**

Explore the role of advertising and sales in small business management, and their role in the implementation of a comprehensive marketing plan.

*Prerequisite: SBE 202.*

*One lecture.*

##### **SBE207. Internet Marketing for Small Business (1).**

Entrepreneurial exploration of Internet marketing opportunities.

*One lecture.*

##### **SBE208. Small Business Legal Issues (1).**

Review and analysis of laws applicable to small business operations.

*One lecture.*

##### **SBE209. Small Business Tax Issues (1).**

What new and existing small business owners need to know about business taxes; tax return requirements; business expenses and other deductions; record keeping; employment taxes; sources of tax information and strategies for minimizing tax liabilities.

*One lecture.*

##### **SBE210. Retail Customer Service for Small Business (1).**

Analysis of techniques related to success in small business retail and service management. Includes customer service, pricing, inventory control, and continuous improvement processes.

*One lecture.*

##### **SBE211. Human Resources and Small Business (1).**

Recruiting and employment guidelines, orientation and training techniques for small business managers. Employee compensation, employment laws, employee benefits, performance evaluations, drug abuse, and records administration. Entrepreneurial work ethics and the small business.

*One lecture.*

##### **SBE212. The Business Plan for Small Business (1).**

How to write detailed professional business plan, reason for the plan and how the plan should be implemented.

*One lecture.*

##### **SBE230. Owning and Operating a Small Business (3).**

Organization and principles of business operation; study and discussion of the problems associated with establishing a business.

*Three lecture.*



## COURSE DESCRIPTIONS

### ■ SOCIOLOGY (SOC)

#### **SOC101. Introduction to Sociology (3).**

Study of human behavior from the sociological perspective. Areas of emphasis include society, culture, social structure, social institutions, socialization, and forms of social stratification.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **SOC120. Aids-A Modern Plague. (1).**

Examination of humanistic and scientific perspectives on the etiology and consequences of AIDS. Historical and ecological understanding of venereal and epidemic disease.

*One lecture.*

#### **SOC125. Domestic Violence (3).**

Theory and dynamics in domestic violence. Defining spouse abuse, exploring origins and impact on children and family.

*Three lecture.*

#### **SOC140. Sociology of Intimate Relationships and Family (3).**

Study of relationships and family life, interpersonal attraction, dating and committed partnerships, relationships and household dynamics, parenting decisions, relationship longevity or dissolution.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **SOC142. Race and Ethnic Relations (3).**

Contemporary racial and ethnic intergroup relations emphasizing cultural origins, developments, and problems of minority groups in the United States.

*Three lecture.*

#### **SOC212. Gender and Society (3).**

Examine the ways society shapes and defines the positions and roles of both men and women. Emphasis on the sociological theories and research methods used to study how femininities and masculinities are constructed within the following social institutions: the family, education, work, healthcare, and the mass media.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **SOC214. Sports and Society (3).**

The impact of sports on various parts of society, such as the economy, men and women, the family, and media. Includes an examination on how society shapes sports participation and the popularity of sports.

*Three lecture.*

#### **SOC220. Introduction to Social Work (3).**

Survey of social work as a profession and social welfare as an institution. Social work: historical development, principles, philosophy, and practices.

*Three lecture.*

#### **SOC/PSY230. Introduction to Statistics in the Social and Behavioral Sciences (3).**

Basic concepts of statistical analysis and design in social and behavioral science research.

*Three lecture.*

#### **SOC250. Social Problems (3).**

A sociological exploration of selected social problems. Emphasis on social issues.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **SOC251. Cultural Diversity (3).**

An interdisciplinary course exploring the dynamics of cultural diversity from psychological, sociological, and historical perspectives. Emphasis on intercultural and intracultural communication.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **SOC/PSY277. Human Sexuality (3).**

Examination of the physical, social and cultural contributions to human sexuality. Examination of the facts and myths, current literature, and changing mores regarding human sexuality. Opportunities to understand the sexuality of males and females in contemporary society.

*Prerequisite: SOC 101 or PSY 101. Reading Proficiency.*

*Three lecture.*

#### **SOC/PSY290. Research Methods (4).**

Planning, execution, analysis, and written reporting of psychological research. Surveys the literature, procedures, and instruments in representative areas of psychological research.

*Prerequisite: SOC 101.*

*Four lecture.*

## COURSE DESCRIPTIONS

### **SOC296. Internship: Sociology (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **SOC299. Independent Study Sociology (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ SPANISH (SPA)

### **SPA101. Beginning Spanish I (4).**

Fundamentals of speaking, writing, listening, and reading of Spanish. Introduction to the culture of the Spanish-speaking world.

*Four lecture.*

### **SPA102. Beginning Spanish II (4).**

Development of speaking, writing, listening, and reading proficiency in Spanish at the novice mid/novice high level. Culture of the Spanish-speaking world.

*Prerequisite: SPA 101 or SPA 132.*

*Four lecture.*

### **SPA/EDU120. Spanish for Educators (3).**

Conversational Spanish for the student who needs a practical speaking and writing knowledge of common terminology used in the school setting.

*Three lecture.*

### **SPA125. Spanish for Health Professionals (2).**

Conversational Spanish for the student who needs a practical speaking knowledge of common medical terms used in a variety of health care settings.

*Two lecture.*

### **SPA131. Conversational Spanish I (3).**

Fundamentals of speaking and listening skills in Spanish. Introduction to the culture of the Spanish-speaking world.

*Three lecture.*

### **SPA132. Conversational Spanish II (3).**

Development of speaking and listening skills in Spanish at the novice level. Culture of the Spanish-speaking world.

*Prerequisite: SPA 101 or SPA 131.*

*Three lecture.*

### **SPA140. Spanish for Special Occupational Groups (1).**

Basic principles of Spanish pronunciation and the use of fixed expressions specific to workplace situations.

*One lecture.*

### **SPA201. Intermediate Spanish I (4).**

Development of speaking, writing, listening, and reading proficiency in Spanish at the novice high level. Culture of the Spanish-speaking world.

*Prerequisite: SPA 102.*

*Four lecture.*

### **SPA202. Intermediate Spanish II (4).**

Development of speaking, writing, listening, and reading proficiency in Spanish at the intermediate low level. Culture of the Spanish-speaking world.

*Prerequisite: SPA 201.*

*Four lecture.*

### **SPA296. Internship: Spanish (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

### **SPA299. Independent Study Spanish (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

## ■ STUDENT SUCCESS SKILLS (STU)

### **STU110. Career Directions (1).**

Vocational assessments and research techniques for college major and career decision making. Emphasis on identifying potential occupational directions.

*One lecture.*

### **STU111. Career and Life Planning (2).**

Exploration of the career decision-making processes, including personal assessment, career exploration, and goal setting. Emphasis on developing career planning strategies. Introduction to job search techniques.

*Two lecture.*

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## Yavapai College CATALOG

### COURSE DESCRIPTIONS



**A B C D E F G H I J M N P R S T V W**

#### **STU150. Becoming a Master Student (3).**

Academic and personal skills to promote a successful college experience.

*Three lecture.*

#### **STU296. Internship: Life Management Skills (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

#### **STU299. Independent Study Life Management Skills (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

### ■ **THEATER (THR)**

#### **THR131. Acting I (3).**

Introduction to performance techniques with emphasis on movement and voice skills, and the performer's relationship to all parts of the play's production. Incorporates creative movement, character analysis, improvisation, stage arts, and the contribution of various types of theater to theater arts.

*Three lecture.*

#### **THR132. Acting II (3).**

Study of performance techniques with emphasis on character development and analysis. Introduction to directing and technical theater as they influence development of acting skills.

*Prerequisite: THR 131.*

*Three lecture.*

#### **THR135. Introduction to the Theater (3).**

Development of theatre in Europe and America from ancient Greece to present. Integrated approach to theatre including playwriting, architecture, acting, production and criticism, particularly in historical settings.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **THR242. American Cinema (3).**

Survey of American film as an art form, an industry, and a system of representation and communication. Technical, aesthetic, and cultural aspects of American cinema and their role in reinforcing and challenging America's national self-image.

*Three lecture.*

#### **THR/HUM243. Development of the Film (3).**

Historical and critical survey of the development of film as an art form, as a system of representation and communication, and as an industry from its invention to the present day. How films work technically, aesthetically, and culturally to create and reinforce social norms.

*Prerequisite: Reading Proficiency.*

*Three lecture.*

#### **THR296. Internship: Theater (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

#### **THR299. Independent Study Theater (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.

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## Yavapai College CATALOG

### COURSE DESCRIPTIONS



**A B C D E F G H I J M N P R S T V W**

#### ■ **VITICULTURE (VIT)**

##### **VIT100. Introduction to Viticulture (3).**

An introduction to viticulture. Includes world-wide history of grapes and their production. Emphasis on the varieties of grapes, grapevine biology and physiology, vineyard management, and harvest and post-harvest operations.

*Three lecture.*

##### **VIT120. Wines of the United States (1).**

A historical view of wine producing regions and states in the United States including California, Oregon, Washinton and New York. Emphasis on the types and varieties of wines and pairing of local foods with local wines. Must be 21 years of age or older to enroll.

*One lecture.*

##### **VIT121. Wines of the World (1).**

History of the vine, the growth of grapes, and the production of wine throughout the world. Emphasis on classification and critique of Old and New World wines. Must be 21 years of age or older to enroll.

*One lecture.*

#### ■ **WEB RELATED STUDIES (WEB)**

##### **WEB/CSA104. Internet Essentials (1).**

Introduction to the world of the Internet. Includes surfing the World Wide Web, using e-mail, search engine and downloading files.

*Three lab.*

##### **WEB/ART130. Web Site Design (3).**

Introduction to design and production of Web pages for publishing on the Internet using Adobe Creative Suite software. Application of design principles.

*Two lecture. Three lab.*

##### **WEB/CSA144. Creating Web Pages Using Dreamweaver (3).**

Create website using Dreamweaver software. Emphasis on creating, publishing to the web and maintaining website.

*Three lecture.*

##### **WEB/CSA150. HTML: Introductory Concepts and Techniques.(1).**

Fundamentals of developing Web pages. HTML language and creating Web pages for course work, professional purposes, and personal use.

*One lecture.*

##### **WEB/CSA 151. Buying and Selling on eBay (.5).**

How to buy and sell on Ebay.

*One-half lecture.*

##### **WEB/CSA167. PHP and MySQL Programming (3).**

Principles and techniques of developing small to medium scale database applications, and creating web databases that are accessed by Web pages.

*Two lecture. Three lab.*

##### **WEB/CSA177. Surfing the Internet (2).**

Basic to intermediate techniques of using the full features of the Internet and its resources. Emphasis on accessing the information of the rapidly expanding and ever changing "Information Superhighway."

*Preparedness recommendation: Basic windows skills and general computer literacy.*

*One lecture. Three lab.*

##### **WEB/ART238. Web Site Design II (3).**

Intermediate design and production of Web pages for interactive media using Adobe Creative Suite software. Includes Adobe Flash and Adobe Dreamweaver, with integration of Adobe Illustrator and Adobe Photoshop. Application of design principles.

*Prerequisite: ART/WEB 130 or CSA/WEB 144 .*

*Two lecture. Three lab.*

##### **WEB/CSA266. Advanced Web Enhancement-AJAX (3).**

Create AJAX web applications that utilize JavaScript, PHP, Document Object Model (DOM), and Extensible Markup Language (XML). Includes XHTML language, Cascading Style Sheet (CSS) and XMLHttpRequest Object.

*Prerequisite: CSA 161.*

*Two lecture. Three lab.*

## COURSE DESCRIPTIONS

### ■ WELDING (WLD)

#### **WLD110. Welding for Artists-Sculpture (2).**

Application of oxyacetylene, shielded metal arc, and gas metal arc welding to metal sculpture. Emphasis on safety, welding technology, equipment use and basic welding skills.

*One lecture. Three lab.*

#### **WLD112. Basic Welding I (2).**

A basic course in oxyacetylene welding including safety, welding techniques, basic metallurgy and welding gases.

*One lecture. Three lab.*

#### **WLD113. Basic Welding II (2).**

A basic course in electric arc welding, welding equipment, and gas-shielded arc welds.

*One lecture. Three lab.*

#### **WLD130. Oxyacetylene (4).**

Instruction in safety, oxyacetylene welding, flame cutting, brazing fundamentals and fuel gases. Competency mastery required.

*Two lecture. Six lab.*

#### **WLD140. Arc I (4).**

Fundamentals of basic arc welding procedures, equipment and safety.

*Two lecture. Six lab.*

#### **WLD145. Arc II (4).**

Instruction in advanced arc welding procedures, equipment and safety and cutting procedures.

*Prerequisite: WLD 140.*

*Two lecture. Six lab.*

#### **WLD156. Blueprint Reading (2).**

Fundamentals of reading and interpreting blueprints and the welding symbols as they apply to welding trade. Competency mastery required.

*One lecture. Three lab.*

#### **WLD200. Tig I (4).**

Selection of electrode, gas, cups and filler rod for inert-gas-tungsten arc (Tig) welding. Techniques and practice in welding butt-joint, t-joint, lap and corner joints in various positions.

*Prerequisite: WLD 140.*

*Two lecture. Six lab..*

#### **WLD210. Gas Metal Arc Welding MIG (3).**

Setup and safe operation of MIG welding equipment. MIG welding of carbon steel plate, stainless steel plate and sheet metal.

*Prerequisite: WLD 140.*

*One lecture. Six lab.*

#### **WLD240. Welding Test and Inspection (3).**

Study of techniques used in industry to test welds. Emphasis on preparing and testing plates. Includes destructive and non-destructive testing of welds.

*Prerequisite: WLD 145.*

*One lecture. Six lab.*

#### **WLD250. Welded Metal Fabrication (4).**

Metal used in manufacturing fabrication and welding techniques. Emphasis on project planning, layout and blueprint reading.

*Prerequisite: WLD 130 and WLD 140 and WLD 156 and WLD 210.*

*Two lecture. Six lab.*

#### **WLD255. Advanced Projects in Welded Metal Fabrication (3).**

Design, layout and fabrication of larger metal projects. Emphasis on structural design and welding techniques.

*Prerequisite: WLD 130 and WLD 140 and WLD 156 and WLD 210.*

*Two lecture. Three lab.*

#### **WLD282. Pipe Welding I (4).**

Welding of pipe in cross-country pipe lines in industry: chemical, petroleum, salt water, fresh water, fuel system, hydraulic systems, mining and others.

*Prerequisite: WLD 145 and WLD 200 and WLD 210.*

*Two lecture. Six lab.*

#### **WLD296. Internship: Welding (3).**

Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Repeatable for a total of 6 credit hours towards degree/certificate requirements. S/U grading only.

*Prerequisite: Student must have a GPA of 2.0; and have completed specific degree requirements as required by the program; and have completed the internship application process.*

#### **WLD299. Independent Study Welding (1-6).**

Supervised special project in this field of study. Approval of supervising Division Dean is required.





## COURSE DESCRIPTIONS

### Reading Proficiency

All students enrolling in any course on the General Education Course list or any course that has designated the prerequisite of Reading Proficiency must demonstrate proficiency in reading by scoring at least 70 on the COMPASS reading placement assessment, scoring at least 17 on the ACT reading assessment, or at least 400 on the SAT critical reading assessment. Students scoring below these levels will be required to complete ENG 083 before enrolling in these courses. It is strongly recommended that students enroll in ENG 140 if they score between 70 and 84 on the COMPASS reading placement assessment.

