

the transition from training environment to operating as a fully functioning firefighter. Offered: On Demand.

**FIRE-281 Portable Pumps & Water Use S-211 1 cr.**

The course consists of three skill areas: supply, delivery, and application of water. Students will be required to demonstrate their knowledge of correct water use, basic hydraulics, and equipment care. The field exercise requires set up, operation, and maintenance of pump equipment. To receive credit for this course, students must have field work observed and approved, and take a closed book written exam. Prerequisites: FIRE-161. Offered: On Demand.

**FIRE-282 Wildland Chain Saws - S212 2 cr.**

The course lessons provide introduction to the function, maintenance and use of internal combustion engine powered chain saws, and their tactical wildland fire application. Field exercises support entry level training for firefighters with little or no previous experience in operating a chain saw, providing hands-on cutting experience in surroundings similar to fireline situations. Offered: On Demand.

**FIRE-283 Fire Operations Wildland/Urban Interface 2 cr.**

This course is designed to assist structure and wildland firefighters who will be making tactical decisions when confronting wildland fire that threatens life, property, and improvements, in the wildland/urban interface. Instructional units include: Interface Awareness, Size-Up, Initial Strategy and Incident Action Plan, Structure Triage, Structure Protection Tactics, Incident Action Plan Assessment and Update, Follow-Up and Public Relations, and Firefighter Safety in the Interface. Offered: On Demand.

**FIRE-284 Driving Wildland Fire Service S216 2 cr.**

This training course is designed to provide the student with the prerequisite knowledge and skills necessary to perform the tasks of the vehicle operator in the Wildland Fire Service. A significant portion of the course time is devoted to actual hands on driving exercises for the students. Offered: On Demand.

**FIRE-285 Crew Boss - S230 1 cr.**

This is a classroom course designed to produce student proficiency in the performance of duties associated with the single resource boss position from initial dispatch through demobilization to the home unit. Topics include: Operational Leadership, Preparation and Mobilization, Assignment Preparation, Risk Management, Entrapment Avoidance, Safety and Tactics, Offline Duties, Demobilization, and Post Incident Responsibilities. Prerequisites: FIRE-161. Offered: On Demand.

**FIRE-286 Engine Boss - S231 1 cr.**

This is a skills course designed to produce student proficiency in the performance of the duties associated with engine boss, single resource (ENGB). Topics include: Engine and Crew Capabilities and Limitations, Information Sources, Fire Size-Up Considerations, Tactics, and Wildland/Urban Interface. Prerequisites: FIRE-161. Offered: On Demand.

**FIRE-287 Wildland Ignition Specialist S234 2 cr.**

This is an entry-level course providing training in the functional roles and responsibilities connected with firing operations. The course covers planning, ignition procedures and techniques, and

equipment applicable to wildland and prescribed fire. This course also addresses the role of the ignition specialist or firing boss as the organization manages escalation from a non-complex to a complex fire situation. Prerequisites: FIRE-161. Offered: On Demand.

**FIRE-288 Interagency Business Management S260 1 cr.**

This course meets the general training needs of all positions for which an understanding of interagency incident business management is required. The Interagency Incident Business Management Handbook, PMS 902, is used as the primary job aid to supplement this course. It provides basic policy and direction for incident business management. Offered: On Demand.

**FIRE-289 Basic Air Operations S270 1 cr.**

This course covers aircraft types and capabilities, aviation management and safety for flying in and working with agency aircraft, tactical and logistical uses of aircraft, and requirements for helicopter take-off and landing areas. Offered: On Demand.

## FRENCH

**FREN-111 Elementary French I 4 cr.**

Develops listening, speaking, reading, and writing skills. Uses a communicative approach to cover vocabulary, grammar, conversation, and culture. Offered: Fall and Spring.

**FREN-112 Elementary French II 4 cr.**

Continuation of FREN-111. Prerequisites: FREN-111. Offered: On Demand.

## GEOGRAPHY

**GEOG-111 Physical Geography 4 cr.**

This class explores the distribution of features across the surface of the earth and analyzes the spatial and functional relationships that shape the earth, including the earth's movements, cycles, atmosphere, oceans, weather and climate, landform processes, vegetation dynamics and distribution, soil development and classification, and ecosystems. A lab is required. Offered: Fall & Spring.

**GEOG-112 World Regional Geography 3 cr.**

This course introduces students to the geographic regions of the world while emphasizing their physical features, resources, economies, culture, and politics. This class will cover trends in population, development and environment occurring around the world as well as methods and concepts of global and regional processes. Offered: Spring.

**GEOG-115 Map Use, Interpretation & Design 4 cr.**

The basic principles, functions, origins, use, interpretation, and cartographic design of maps will be covered. Offered: Fall.

**GEOG-118 Introduction to Mapping Technologies 4 cr.**

This course is an introduction to the current primary mapping technologies. Students will develop a basic understanding of Geographic Information Systems (GIS), Global Positioning Systems (GPS), and remote sensing technologies. Emphasis will be placed on applications of these technologies to a variety of fields. A lab is required. Offered: Spring.

**GEOG-120 GPS & Surveying Methods 4 cr.**

This course provides an overview of global positioning systems. Topics include the theory, implementation, and operations of global positioning systems. Students will learn the fundamentals of acquiring GIS data using GPS technology, and understand surveying methods important for use in GIS. Prerequisites: GEOG-118. Offered: Spring.

**GEOG-125 Weather and Climate 3 cr.**

Introduces the atmospheric processes and geographic distribution of factors that interact to create weather systems and storms. Course will address issues such as the greenhouse effect, severe weather, global temperature patterns and air pollution, and the implications of climate change. Semester Offered: Fall.

**GEOG-130 Natural Hazards 3 cr.**

This course focuses on the natural hazards that exist around the globe and impact humans in loss of life and property in seemingly unpredictable events. Emphasis will be on the cause and effect, patterns, emergency response and mitigation of natural hazards in relation to human settlement and development. Offered: Spring.

**GEOG-135 Energy & Natural Resources Geography 3 cr.**

An overview of technical, historical, economic, social, and environmental aspects of energy systems, including fossil fuels, nuclear, solar, wind, biomass, and energy end use efficiency and conservation. The class will also cover how energy and natural resources (agriculture, food supplies, forest products, mining, etc.) are developed and their effects on the environment, economy, public health, national security, transportation, and cultural development at local and global scales. Offered: Fall.

**GEOG-140 Geography of the Four Corners 3 cr.**

Focus on the geography of the Four Corners region of the southwestern United States. The course provides an overview of climate, geology, topography, soils, vegetation, ecosystems, cultural and historical geography of the region. Current environmental, social, economic, and political issues will be discussed. Field trips are required and may include an overnight trip. Offered: Spring.

**GEOG-145 Human Geography 3 cr.**

Explores the complex relationships between humans and their environments. Examines such fields as population distribution and characteristics, health and nutrition, culture in its various manifestations, economic activity, political entities, and settlement. Prerequisites: Completion of RDNG-113 or appropriate Reading Accuplacer score. Corequisites: ENGL-111, MATH-095. Offered: Fall.

**GEOG-151 GIS I 4 cr.**

This course covers the fundamentals of GIS theory and application. Emphasis will be placed on understanding how geographic features are represented, captured, and stored as digital data, and how that data may be analyzed and mapped using state-of-the-art GIS tools. Lab projects will develop hands-on expertise with industry standard software. Prerequisites: GEOG 118 and COSC-125. Offered: Fall & Spring.

**GEOG-230 Geographic Image Analysis 4 cr.**

This course will cover the foundations of remote sensing, aerial photo interpretation, the use of imagery in GIS, and 3D visualization through lecture and lab. Students will engage in specific applications such as image classification and multi-spectral analysis to solve real world urban and environmental problems. Prerequisites: GEOG-115 and GEOG-151. Offered: Spring.

**GEOG-251 GIS II 4 cr.**

This course builds on the knowledge and skills developed in GIS I. This course provides more detailed instruction on the theories and procedures associated with the implementation of GIS projects, their management, and their completion. Emphasis on in-depth spatial analysis and applications of GIS. Hands-on expertise will be further developed. Prerequisites: GEOG-115, and GEOG-151. Offered: Fall.

**GEOLOGY****GEO-110 Introduction to Geology 4 cr.**

A study of the composition and structure of the earth, including plate tectonics, minerals, the rock cycle, mountain building, energy resources, and natural hazards such as volcanoes, earthquakes, and landslides. This class includes optional weekend field trips. Offered: Fall & Spring.

**GEO-111 Historical Geology 4 cr.**

The geologic history and development of life on the earth as recorded by rocks and fossils. Special consideration is given to plate tectonics and fossils in the lectures and to fossils and geologic maps in the laboratories. This class includes a field trip. Prerequisites: GEO-110. Offered: Spring.

**GEO-115 Geology of the Four Corners 4 cr.**

Studies the geologic history and processes that shaped the Four Corners Region and the Colorado Plateau. Classroom meetings will focus on providing students with necessary geology background which will then be applied in a field setting. Required overnight field trips. Offered: On Demand.

**GEO-120 Intro to Petroleum Geology 4 cr.**

This course will study various aspects of petroleum geology and fossil fuels. Content will include formation and classification of regional sedimentary rocks, geologic history of the Four Corners Region, and formation, detection, and extraction of oil, natural gas, and coal. This class includes field trips. Offered: Summer.

**GEO-270 Mineralogy 4 cr.**

A study of elementary crystallography. Topics covered include description, identification, classification, chemistry, and occurrence of minerals that form common rocks and ore deposits. This class includes a field trip. Prerequisites: GEO-110. Offered: Fall.

**GEO-271 Petrology 4 cr.**

The origin, classification, and identification of igneous, sedimentary, and metamorphic rocks. This class includes a field trip. Prerequisites: GEO-270. Offered: Spring.