

**FIRE-245 Pumping Apparatus Driver/Operator** 4 cr.  
Based on the National Fire Protection Association standard 1002 - Professional competencies for fire apparatus driver/operators. The course is designed to incorporate approximately 46 hours of lecture and 25 hours of lab time. There are student requirements for practical evolution practices outside of the course framework. This includes a valid driver's license (Class A, B, or E) covering fire apparatus to be operated. Prerequisite: Permission of instructor. Semester offered: On Demand.

**FIRE-250 Firefighter II Skills Proficiency Lab** 4 cr.  
In this course the student will demonstrate proficiency in the skills required for the National Fire Protection Association (NFPA) standard 1001 - Professional competencies for firefighters - Firefighter II. Students will build confidence by having the opportunity to actually perform those competencies and skills taught in previous portions of the class under actual emergency or simulated emergency conditions. Prerequisites: FIRE 120 and department affiliation.

**FIRE-255 Fire Safety-Save Your Own** 2 cr.  
Instructs firefighters with the information and skills needed to recognize conditions that contribute to firefighter injury and fatalities. This includes 16 hours of lecture, and 25 hours of lab time. Topics covered in the lecture/classroom portion include fatality rates, federal mandates, fire ground communication, fire fighter entanglement and the formation of RIT teams. Prerequisites: FIRE 110, FIRE 120. Semester offered: On Demand.

**FIRE-260 Fire Officer I** 4 cr.  
Covers such topics as the role of fire officers, safety and wellness of fire personnel. This includes recognizing and managing cultural diversity, problem solving, building construction, community awareness, public relations, fire cause determination, and effective communication. Prerequisite: FIRE 120. Semester offered: On Demand.

**FIRE-265 Fire Officer II** 3-4 cr.  
Covers such topics that include human resources management, managing affirmative action, government agencies, budgetary process and information management systems. Also covered are health and safety, public fire education, specialized fire protection equipment, strategic planning and tactics. Prerequisite: FIRE 260. Semester offered: On Demand.

**FIRE-280 Firefighter Career Internship** 4 cr.  
Instructs students who will operate as a line firefighter. The instructor will maintain contact with the student and guide them to accomplish those functions required in the firefighting career. This educationally based experience will help the student make the transition from training environment to operating as a fully functioning firefighter. Prerequisite: Permission of instructor. Semester offered: On Demand.

## FRENCH

**FREN-111 Elementary French I** 4 cr.  
Develop listening, speaking, reading and writing skills to communicate at a basic level. The course will use a communicative approach to cover the fundamentals of basic vocabulary, grammar, conversation and culture. Prerequisites: APEN 40+ and APRD 39+ or permission of instructor. Semester offered: Fall, and Spring.

**FREN-112 Elementary French II** 4 cr.  
Continuation of FREN 111. Elementary French I. Prerequisite: FREN 111 or permission of instructor. Semester offered: On Demand.

**FREN-211 Intermediate French I** 3 cr.  
This course is designed to further develop listening, speaking, reading and writing skills in French using a communicative approach to reinforce and expand the students' working knowledge of vocabulary, grammar, and culture. Prerequisite: FREN 112 or permission of instructor. Semester offered: On Demand.

**FREN-212 Intermediate French II** 3 cr.  
Continuation of Intermediate French I. Prerequisite: French 211 or permission of instructor. Semester offered: On Demand.

## GEOGRAPHY

**GEOG-111 Physical Geography** (3+2p) 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. Semester offered: Fall.

**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. Semester Offered: Fall, Spring.

**GEOG-115 Map Use, Interpretation and Design** (3+2p) 4 cr.  
The basic principles, functions, origins, use, interpretation, and cartographic design of maps will be covered. Semester Offered: Fall.

**GEOG-118 Introduction to Mapping Technologies** (3+2p) 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. Semester Offered: Fall and Spring.

**GEOG-120 GPS and Surveying Methods** (3+2p) 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. Prerequisite: GEOG 118. Semester 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. Semester offered: Spring.

**GEOG-135 Energy and 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. Semester 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. Semester 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. Prerequisite: APRD 82 or RDNG 113. Corequisite: ENGL 111; MATH 095. Semester offered: - Fall.

**GEOG-151** GIS I (3+2p) 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. Prerequisite: GEOG 111, COSC 125. Semester offered: Fall, Spring.

**GEOG-230 Geographic Image Analysis** (3+2p) 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. Prerequisite: GEOG 115, GEOG 151. Semester offered: Fall On Demand.

**GEOG-251 GIS II** (3+2p) 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. Prerequisite: GEOG 115, GEOG 151. Semester offered: Fall.

## GEOLGY

**GEOL-110 Introduction to Geology** (3+2p) 4 cr.  
A study of the composition and structure of the earth, including plate tectonics, minerals, the rock cycle, the hydrologic cycle, and natural hazards such as volcanoes, earthquakes, and landslides. Semester offered: Fall and Spring. [NM Common Course Number GEOL 1114, Area III; Laboratory Science Core]

**GEOL-111 Historical Geology** (3+2p) 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. Textbook, lectures, laboratories, and a field trip. Prerequisite: GEOL 110. Semester offered: On Demand. [NM Common Course Number GEOL 1214, Area III; Laboratory Science Core]

**GEOL-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. Semester Offered: On Demand.

**GEOL-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. Semester Offered: Summer.

**GEOL-270 Mineralogy** (3+2p) 4 cr.  
A study of elementary crystallography. Topics covered include description, chemistry, determination, and occurrence of minerals that form common rocks and ore deposits. Textbook, lectures, laboratories, and a field trip. Prerequisite: GEOL 110. Semester offered: On Demand.

**GEOL-271 Petrology** (3+2p) 4 cr.  
The origin, classification, and identification of igneous, sedimentary and metamorphic rocks. Textbook, lecture, laboratories, and field trip. Prerequisite: GEOL 270. Semester offered: On Demand.

**GEOL-276 Environmental Geology** 3 cr.  
Earth processes that affect man and his works. Properties of rocks and soil; use and application of environmental geological data. Semester offered: On Demand.

## GERMAN

**GERM-111 Elementary German I** 4 cr.  
The purpose of this beginning class is to develop listening, speaking, reading and writing skills to communicate at a basic level. The course will use a communicative approach to cover the fundamentals of basic vocabulary, grammar, conversation and culture. Prerequisites: APEN 40+ and APRD 39+ or permission of instructor. Semester offered: Fall, Spring.