



SAN JUAN COLLEGE

DUAL
CREDIT
CATALOG

2009-2010

Classes and Credits are subject to change. Classes available are dependent upon the final Master Agreements signed by each School District.

DUAL CREDIT CATALOG

2009-10

ACCOUNTING

ACCT-175 Fundamentals of Accounting IA 3 cr.

This serves as the first course of a two course sequence designed as an option towards meeting the requirements of ACCT-201. The course gives the student a solid introduction to generally accepted accounting principles, beginning with basic double-entry concepts, classification of accounts, preparation of financial statements and special-purpose journals. Emphasis is on the sole proprietorship, including both service and merchandising entities. Semester offered: Fall and Spring.

ACCT-176 Fundamentals of Accounting IB 3 cr.

This serves as the second course of a two course sequence designed as an option towards meeting the requirements of ACCT-201. The course continues with a study of accounting information systems, special purpose journals, cash and internal controls and the measurement and reporting of assets and current liabilities. Emphasis is on the sole proprietorship with an introduction to accounting for partnerships. Prerequisite: ACCT-175. Semester offered: Fall and Spring.

ADMINISTRATIVE OFFICE ASSISTANT PROGRAM

AOAP-118 Administrative Office I 3 cr.

Students will learn the importance of following the proper procedures of maintaining an efficient office required in today's technologically advanced business environment. Emphasis on the importance of punctuality, neatness/dress, and responsibility, establishing procedures for basic office tasks, learning to greet clients, make travel arrangements, answer the phone, create convention/seminar arrangements, and develop well-organized resume and job interviewing techniques. Semesters Offered: Fall and Spring.

AOAP-123 Keyboarding 3 cr. Available Online

This course enables the student to learn and/or reinforce keyboarding skills using the computer and to work toward accuracy and speed. The course also introduces fundamental word processing functions by formatting and editing basic business documents, i.e., letters, memos, and reports. Semesters Offered: Fall, Spring and Summer.

AOAP-210 Word Processing 3 cr. Available Online

The Word Processing class will introduce students to many beginning and advanced applications. Students will create, edit memos, letters, and reports of varying complexity. Students will learn to format and customize a range of document types. To enhance written communication, students will learn to add and modify graphics and other visual elements. Students will organize content into tables, lists and other structures to promote reader understanding. Prerequisite: AOAP 123 Keyboarding or equivalent. Semesters Offered: Fall, Spring and Summer.

ANTHROPOLOGY

ANTH-110 Introduction to Anthropology 3 cr. Available Online

Provides a basic introduction to the concepts and methods used by anthropologists to study human groups, with an overview of the four major subfields (biological anthropology, archaeology, linguistics, and sociocultural anthropology). Prerequisites: APEN 070+ or ENGL 095; APRD 058+ or RDNG 095. Semester offered: Fall and Spring. [NM Common Course Number ANTH 1113, Area IV: Social/Behavioral Science Core]

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ANTH-111 Navajo Culture 3 cr.

Introduces the basic values of Diné society, past and present, including the clan system, the philosophy of duality, rites and passages, and the Navajo creation story. Offered in collaboration with Diné College (NIS 111). Prerequisites: APEN 070+ or ENGL 095; APRD 058+ or RDNG 095. Semester offered: Fall, odd years.

ART

ARTS-110 Orientation in Art 3 cr.

Emphasis on contemporary approaches to painting, sculpture, architecture and industrial arts and crafts. Understanding of materials and processes and basic design principles is stressed through direct experience and heightened perception. Prerequisites: APEN 070+ or ENGL 095; APRD 058 or RDNG 095. Semester offered: Fall and Spring. [NM Common Course Number, ARTS 1013, Area V; Humanities and Fine Arts Core]

ARTS-112 Beginning Drawing I 3 cr.

Utilizes various methods and materials with emphasis on the perception of form in many areas of subject matter and consideration of the elements of composition. Semester offered: Fall and Spring.

ARTS-113 Drawing II 3 cr.

Continuation of ARTS 112. Prerequisite: ARTS 112. Semester offered:FA/SP

ARTS-125 Basic Watercolor Techniques 3 cr.

Pursuing individual expression through techniques of wash, blending, color mixing, textural effects and brush manipulation. Semester offered: On Demand.

ARTS-171 Intro to Interior Design 3 cr.

An introduction to basic interior design, to include color coordination, furniture arrangement, unusual window treatments, choice of fabric and floor coverings, and accessories. This course will help participants understand the overall concept of design, and will help students develop skills associated with design projects. Semester offered: On Demand.

ASTRONOMY

ASTR-110 Introduction to Astronomy 4 cr.

Observation, theories, and methods of modern astronomy. General study for non-science majors. Prerequisite: High school chemistry or physics or PHYS 111. Semester offered: Fall and Spring. [NM Common Course Number ASTR 1114, Area III; Laboratory Science Core]

ASTR-111 Introduction to Space Science 4 cr.

An introduction to the principles of space exploration. Investigates the forces which control the nature of the interiors, surfaces, and atmospheres of the planets. Describes the role of solar heating in the energy balance of planetary atmospheres, and defines the conditions necessary for life. Theories of the origin and evolution of the solar system are discussed. Prerequisite: MATH 096. Semester offered: On Demand.

ASTR-113 Constellation Mythology 3 cr.

A study of the ancient mythological stories and philosophies of world cultures as seen in the patterns of stars in the night sky. A basic grounding in Greco-Roman myths and representations of star patterns will be compared to other world cultures, including, but not limited to, Native American, Chinese, Arabic, South Pacific, and Arctic.

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ASTR-120 Deep Space Astronomy 3 cr.

Conceptual study of cosmology and relativity, emphasizing the Einsteinium perceptions of gravity, matter, energy, and space-time geometry. Also examines in detail anomalous subjects such as black holes, wormholes, “white fountains”, and obstacles to superluminal (“faster than light”) travel. Prerequisite: ASTR 110. Semester Offered: Spring.

AVIATION TECHNOLOGY

AVIA-110 Aviation Ground School 4 cr.

Covers the basic study of federal aviation regulations, meteorology, navigation, theory of flight, use of radar and general service of aircraft. Semester Offered: On Demand.

AVIA-266 Meteorology for Pilots 3 cr.

The basic study of meteorology which includes the earth’s atmosphere and the elements that affect it, air masses and air mass modification, in-flight weather hazards, aviation weather reports, and weather forecasts will be offered. Corequisite: AVIA 120. Semester offered: Fall, Spring and Summer.

BUSINESS ADMINISTRATION

BADM-114 Introduction to Business 3 cr. Available Online

A survey course presenting an overall integrated picture of American business and its operations. Included are such topics as forms of business ownership, management, internal organization, production, personnel, labor relations, marketing, short-term and long-term finance, insurance, accounting principles, business law, and entrepreneurship. Semester offered: Fall, Spring and Summer. [NM Common Course Number: BUSA 1113, Business Transfer Module]

BADM-132 Introduction to Financial Planning 3 cr.

This course emphasizes the decision-making processes necessary for all aspects of personal financial planning. It familiarizes the student with a budgeting framework that enables the coordination of current goals with future goals. Students will be introduced to various aspects of major financial decision-making. Semester offered: Spring.

BADM-134 Supervision 3 cr.

This course is intended for those who either want to become supervisors or want to improve their present level of supervisory skills and knowledge. Management principles and their application to actual on-the-job situations are presented enabling students to contribute more effectively to the goals of the organization. Semester offered: Fall and Spring.

BADM-139 Personal Investing 3 cr.

This course will provide a practical education in the research and analysis of common investments such as stocks, bonds, mutual funds, and some derivatives such as options on equities. The course will also include topics such as risk and reward, proper portfolio management and diversification, time value of money, operation of the investment markets, and the economics surrounding various investment options. Students will be involved with simulated stock, and option competitions to help them understand the dynamics of the financial markets. The student needs no prior investment knowledge; however, some investment experience will be helpful. Semester offered: On Demand.

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BADM-146 Personal Selling 3 cr.

A study of the principles and techniques of personal selling as a form of persuasive communication basic to business and other types of interpersonal relationships. Sales presentations are prepared and presented by each student. Semester Offered: On Demand.

BIOLOGY

BIOL-110 Non-Majors Biology 4 cr.

An understanding of how biological issues affect society is crucial for citizens of today's society. This non-majors course is an introduction to such issues as cloning; genetics, genetic screening and genetically modified organisms; global warming and the carbon cycle; population growth, environmental hazards, ecology, evolution and biodiversity, especially local flora. Prerequisites: Scores of 70+ (Engl); 58+ (Reading); or completion of ENGL 095 and RDNG 095. Corequisite: ENGL and RDNG 095 can be taken concurrently. Semester offered: Fall and Spring. This course does not substitute for BIOL 121 or 122.

BIOL-112 Human Body Structures and Functions (3+2p) 4 cr. Available Online

The organization, metabolic processes and regulation of cells and tissues. Basic concepts of the physical and chemical operation of the organs and systems of the human body. System review to include integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary and reproductive systems. This course does not substitute for BIOL 121, 252, or 253. Non-transferable. Semester offered: Fall and Spring.

BIOL-121 Introductory Biology I (3+2p) 4 cr.

An introduction to the basic processes of living organisms. Topics to be covered will include cell structure and function, cellular reproduction, metabolism, photosynthesis, the basic chemical processes, introductory biochemistry, energetics, enzyme structure and function, protein synthesis, and basic Mendelian genetics. Semester offered: Fall and Spring. [NM Common Course Number BIOL 1214, Area III; Laboratory Science Core]. Prerequisite: Scores of 85+ (English); 82+ (Reading); 66+ (Arithmetic) or successful completion of MATH 095. Co-requisite: RDNG 113 and/or ENGL 111 can be taken concurrently.

CHEMISTRY

CHEM-110 Introductory Chemistry (3+2p) 4 cr.

An introductory survey of general chemistry including: scientific and dimensional analysis, interactions of heat, light, and electric fields with matter, atomic and molecular structure, reaction dynamics, acid-base systems, and electrochemistry. Fulfills lab science requirement for non-science majors and as an introductory course for students with no prior chemistry. Prerequisite: MATH 096 or equivalent. Semester offered: Fall, Spring and Summer. [NM Common Course Number CHEM 1114, Area III; Laboratory Science Core]

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CHEM-111 General Chemistry I (3+3p) 4 cr.

Part one of the general study of atomic systems including: scientific and dimensional analysis, states of matter, thermochemistry, atomic structure, chemical bonding, molecular geometry, liquid crystal, thin film, and ceramic materials. For engineering and pre-professional majors. Prerequisite: MATH 115 or equivalent; high school chemistry with grade of B or better within the last four years, or CHEM 110 with grade of C or better. Semester offered: Fall and Spring. [NM Common Course Number CHEM 1214, Area III; Laboratory Science Core]

COMMUNICATIONS AND MEDIA

COME-120 Survey of Mass Media 3 cr.

A study of contemporary communication systems including radio, TV, newspaper, magazines and the Internet for use in public relations, advertising, and propaganda. Semester offered: Fall and Spring.

COME-127 Communication Practicum 3 cr.

Students will work in supervised job training opportunities. They will be trained for the transition from school to the world of work. Theory and skills in both video and radio are integrated for maximum student job success. Job sites include the college radio and video departments and commercial broadcast facilities in the region. Prerequisite: COME 130. Semester offered: On Demand.

COMPUTER GRAPHICS

COGR-160 Computer Graphics I 4 cr.

This introductory course includes concepts of computer graphics, modeling techniques, interfaces, terminology, and color theory; principles of two-dimensional computer animation, image processing, and presentation media; and computer design theory. Primary emphasis upon PC computer software to produce animations of logos, titles and text, graphs, cartoon characters, cycling colors and special effects; presentation software; desktop publishing; and still image processing. Theory will include design criteria, storyboard preparation, image manipulation, and hands-on computer use for instructional, marketing, graphic design, and artistic purposes. Semester offered: Fall.

COGR-165 Computer Graphics II 4 cr.

This course is continuation of the Computer Graphics I with an emphasis on three-dimensional design, process, presentation, and imaging using PC-based computer graphics media and animation software, with a minor emphasis upon MAC-based programs and processes. This course will include preparation of three-dimensional images used for presentations, printed materials, and short animations. A final project will involve using composite three-dimensional objects for visualizing abstract concepts, solid objects in motion, or moving figures for education, sales, and marketing purposes. Prerequisite: COGR 160. Semester offered: Spring.

COMPUTER SCIENCE

COSC-111 Computer Literacy 3 cr. Available Online

The evolution of computers, their application and their economic and social implications including a brief introduction to programming and computer literacy with a non-technical emphasis. For non-computing majors. Prerequisites: MATH 050 or APAR 040, ENGL 095 or APEN 070, and RDNG 050 or APRD 039. Semester offered: Fall, Spring, Summer

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COSC-116 Spreadsheets 3 cr. Available Online

Comprehensive coverage of current spreadsheeting software - from basic data entry and formatting to complex functions, data importation, and Macro creation. Students will be taught most of the features available in the software, and will be required to apply those skills throughout the course. Special emphasis is placed on spreadsheet development for mathematical and financial/accounting applications. This course can be used to prepare for the corresponding Microsoft Certified Application Specialist exam. Prerequisites: MATH 096 or APAL 061, ENGL 099 or APEN 085, RDNG 113 OR APRD 081. Semester offered: Fall, Spring.

COSC-118 Computer Programming Fundamentals I w/C++ 3 cr.

An introduction to programming and computing integrating problem solving and algorithmic design using the object-oriented programming language C++. Prerequisites: MATH 095 OR APAL 061, ENGL 095 or APEN 070, RDNG 095 or APRD 058. Semester offered: Fall and Spring.

COSC-122 Game Programming I 3 cr.

This course is an introduction to game programming as well as an introduction to the C++ computer programming language. A variety of game programs are presented in the textbook and most assignments involve making changes and/or improvements to the existing game programs. Games include Lost Fortune, Guess My Number, Word Jumble, Hangman, Tic-Tac-Toe, and Blackjack. Prerequisites: MATH 095 OR APAL 061, ENGL 095 or APEN 070, RDNG 095 or APRD 058. Semester offered: On demand.

DIGITAL MEDIA ARTS AND DESIGN

DMAD-110 Principles of Multimedia 3 cr.

A general introduction to the concepts and software used in creating multimedia. Course focuses on how each element plays a role in communicating messages and how use of multimedia can increase and change messages. This hands-on survey course introduces relevant multimedia technologies, with a focus on interactive media platforms such as the web, DVDs, CDs, electronic documents and examines current multimedia trends. Prerequisites: MATH 050 or APAL 061, ENGL 099 or APEN 070, and RDNG 050 or APRD 039. Semesters Offered: Fall and Spring.

DRAFTING

DRFT-110 Technical Drafting I 3 cr.

The course will comprise a study of the techniques of drafting and the preparation of drawings using traditional drafting methods. Prerequisites: MPE or MATH 095. Semester offered: Fall, Spring. Corequisite: DRFT 150.

DRFT-111 Drafting for Industry 3 cr.

The course will comprise a study of the techniques of drafting and the reading and preparation of drawings for craftspeople. The graphic language of industry is covered in the areas of multi-view projection, welding, and machining trades. Semester offered: Spring.

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DRFT-112 Materials and Processes 3 cr.

This introductory course in materials science will give the student a basic knowledge of materials and commonly employed processing and manufacturing methods. Semester offered: Spring.

DRFT-115 Technical Drafting II 4 cr.

This course comprises the use of auxiliary views, geometric tolerancing, threads, fasteners and springs, dimensioning, axonometric projection, oblique projection and perspective drawing in the production of drawings. Prerequisites: DRFT 110 and DRFT 150. Semester offered: Spring.

DRFT-119 Surveying 4 cr.

Elementary plane surveying to include concepts, field work, and computation. Prerequisite: MATH 096 or Accuplacer score of 61 in Algebra. Semester offered: Fall.

DRFT-120 Descriptive Geometry 3 cr.

Descriptive geometry is a study of points, lines and planes in their spatial relationships. Problems in finding their true positions, lengths and shapes are solved by the principles of orthographic projection. Semester offered: Spring.

DRFT-150 Computer-Aided Drafting (CAD) 4 cr.

A course designed to train students in the use of computer-aided drafting equipment to produce engineering drawings in two-dimensional format, using the basic draw and edit commands. Corequisite: DRFT 110. Semester offered: Fall and Spring.

EARLY CHILDHOOD EDUCATION

ECED-120 Guiding Young Children 3 cr.

Explores various theories of child guidance and the practical application of each. Provides developmentally appropriate methods for guiding children and effective strategies and suggestions for facilitating positive social interactions. Appropriate strategies for preventing and dealing with violence, aggression, anger, and stress will be included. Emphasis is placed on helping children become self-responsible, competent, independent, and cooperative learners. Prerequisites: APEN 070+ or ENGL 099; APRD 081+ or RDNG 113.

ECONOMICS

ECON-212 Economic Development of the US 3 cr.

This course is a history of economic development in the United States from colonial days to the present. Such issues as the transformation of America from an agricultural economy to an industrial economy and finally to a post-industrial age are discussed. The changing roles of government, education, money and banking, and industry are major topics. Semester offered: On Demand.

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ECON-251 Macroeconomics 3 cr. Available Online

Covers supply and demand, the danger of price controls, the role of government in free markets, international trade, international finance, currency exchange rates, purchasing power parity, the balance of payments, national income accounting, elements of long-run economic growth, inflation, unemployment, the business cycle, economic models explaining changes in the business cycle, fiscal policy, monetary policy, and the money supply. The application of economics to the financial markets is stressed along with economic indicators. Prerequisites: RDNG 095 or APRD 58+, ENGL 099 or APEN 85+, and MATH 096 or APAL 61+. Semesters Offered: Fall, Spring, Summer.[NM Common Course Number ECON 2113, Area IV; Behavioral/Social Science Core]

ECON-252 Microeconomics 3 cr. Available Online

Covers the history of economic development, comparisons of the major economic systems, supply and demand, the tax structure, price controls, price elasticity of demand, the distribution of income, social security, problems with measuring income, demographic effects on the economy, the cost structure of firms, perfect competition, monopoly, monopolistic competition, oligopoly, economies of scale, monopoly regulation, labor markets and an examination of the economy's effect on the environment. The application of economics to the financial markets is stressed. Prerequisites: RDNG 095 or APRD 58+, ENGL 099 or APEN 85+, and MATH 096 or APAL 61+. Semester offered: Fall, Spring and Summer.[NM Common Course Number ECON 2123, Area IV; Behavioral/Social Science Core]

EDUCATION

EDUC-120 Introduction to Teaching 4 cr.

Introduction to public education and teacher tasks and responsibilities. Students will receive an overview of foundation educational theories and research based effective practice. The teacher's role related to multicultural education will be covered, with special emphasis on diversity within New Mexico schools. Classroom observation is required. Semester offered: Spring.

ENGLISH

ENGL-111 Freshman Composition 3 cr. Available Online

A writing workshop with reading assignments, in-class writing exercises, group learning activities, and essay draft workshops that will help students produce their best work for their writing portfolios. The course emphasizes academic essay writing and introduces the documented argument paper. Prerequisites: ENGL 095 with signed waiver from instructor or ENGL 099 or APEN 085+. Corequisite: RDNG 113 or APRD 081+. Semester offered: Fall, Spring, and Summer. [NM Common Course Number ENGL 1113, Area I; Communications]

ENGL-118 Technical Composition 3 cr. Available Online

This college-level course introduces communication skills useful to technicians. Specific activities include a study of sentence mechanics; reading and summarizing technical material; gathering information and preparing both oral and written reports; and writing memoranda and letters. Additionally, the writing skills necessary for a job search will be emphasized. Prerequisites: ENGL 095 with signed waiver from instructor, ENGL 098 or 099 or APEN 085+. Corequisite: RDNG 113 or APRD 081+. Semester offered: Fall, Spring, and Summer.

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ENGL-125 Introduction to Creative Writing 3 cr.

This course teaches techniques for creative writing and explores imaginative uses of language through creative genres (fiction, poetry, creative non-fiction, playwriting) with emphasis on the students' unique style, subject matter and needs. In a workshop setting, students will write a great deal, learn critical terminology, and spend time discussing craft and strategies for effective revision. Offered: Fall Semester.

ENGL-225 Introduction to Poetry 3 cr.

This course will explore the vast world of poetry. In addition to surveying poetry, it will also study poetic conventions, techniques, and forms. Special attention will be paid to contemporary poetry. Prerequisite: ENGL 111 or permission of instructor. Semester offered: On Demand.

ENGL-230 Southwest Literature 3 cr.

A study of the American Southwest through fiction, poetry, biography and other works by Anglos, Native Americans, and Hispanics. This course will contribute to the student an increased understanding of the culture of the Southwest and its relations to the broader American culture. Prerequisite: ENGL 111 or permission of instructor RDNG 113. Semester offered: Fall, odd numbered years.[NM Common Course Number ENGL 2713, Area I; Communications]

ENGL-235 Women's Literature 3 cr.

A survey of the works of women writers from the English-speaking tradition. Course includes study of works in various genres that explore the diversity of women's experience throughout the ages. Prerequisite: ENGL 111 or permission of instructor and RDNG 113. Semester offered: Fall, even-numbered years.

ENGL-243 The Bible As Literature 3 cr.

This course is a literary introduction to the Bible including a study of genres (narrative, poetry, proverb, visionary writing, and others), language, and archetypes. Prerequisite: ENGL 111 or permission of instructor and RDNG 113. Semester offered: On Demand.

ENGL-245 American Indian Literature 3 cr.

Provides students with an introduction to a representative range of contemporary and historical works by Native American Writers. Emphasizes literary styles of expression and analyzes texts for their influence on cultural continuity. Prerequisite: ENGL 111 or permission of instructor and RDNG 113. Semester offered: Spring, even-numbered years.[NM Common Course Number ENGL 2733, Area I; Communications]

ENGL-251 American Literature to 1865 3 cr.

A survey of the major literary works from pre-colonial times to 1865. Prerequisite: ENGL 111 or permission of instructor and RDNG 113. Semester offered: Fall. [NM Common Course Number ENGL 251, Area I; Communications]

ENGL-252 American Literature From 1865 to Present 3 cr.

A continuation of the survey of major literary works from 1865 to the present. Prerequisite: ENGL 111 or permission of instructor and RDNG 113. Semester offered: Spring.[NM Common Course Number ENGL 2523, Area I; Communications]

ENGL-261 Survey of World Literature I 3 cr.

A study of world literature from antiquity through the Renaissance. Prerequisite: ENGL 111 or permission of instructor and RDNG 113. Semester offered: Fall. [NM Common Course Number ENGL 2613, Area I; Communications]

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ENGL-262 Survey of World Literature II 3 cr.

A study of representative texts showing the diversity of people and cultures from a range of time periods from the Renaissance to the modern world. Prerequisite: ENGL 111 or permission of instructor and RDNG 113. Semester offered: Spring.[NM Common Course Number ENGL 2623, Area I; Communications]

FINANCE

FINA-265 Personal Investing 3 cr.

Provides a practical education in the research and analysis of common investments such as stocks, bonds, mutual funds, and some derivatives including put and call options on equities. The course will also cover risk and reward, proper portfolio management and diversification, time value of money, operation of the investment markets, and the economics surrounding various investment options. Students will be involved with simulated stock, mutual fund, and option competitions. Semester Offered: Fall and Spring.

FRENCH

FREN-111 Elementary French 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, 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.

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-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.

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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.

GEOLOGY

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]

HEALTH

HLTH-118 Introduction to Nutrition 3 cr. Available Online

Nutrition includes the biochemistry of the essential nutrients, nutritional needs within the life cycle, nutritional status assessment of individuals and populations, food policies and regulatory agencies, nutritional aspects of disease, and current nutritional issues. This course prepares students to become sophisticated consumers of nutrients and nutrition information so they might make informed decisions about personal nutrition, health, and fitness. Semester offered: Fall, Spring and Summer.

HLTH-150 Personal Health and Wellness 3 cr.

This course is designed to study the various aspects of personal health and wellness, including emotional, physical, social, occupational, spiritual, and intellectual components. The class looks at the nature, scope, and function of major health considerations. This class does not meet the physical education activity requirement for AA degree. Semester offered: Fall and Spring.

HISTORY

HIST-121 Western Civilization to 1700 3 cr. Available Online

Examines the intellectual, social, economic, cultural, and political evolution of Western Civilization from the origins of the humanity to 1700. Prerequisites: ENGL 099, RDNG 095. Semester offered: Fall, Spring and Summer. [NM Common Course Number HIST 1053, Area V: Humanities/Fine Arts Core]

HIST-122 Western Civilization from 1700 3 cr. Available Online

Examines the intellectual, social, economic, cultural, and political evolution of Western Civilization Since 1700. Prerequisites: ENGL 099, RDNG 095. Semester offered: Fall, Spring and Summer. [NM Common Course Number HIST 1063, Area V: Humanities/Fine Arts Core]

HEALTH INFORMATION TECHNOLOGY PROGRAM

Courses Beyond H1TP 110 Requires an Application and Acceptance into Program

H1TP-110 Medical Terminology 3 cr. Available Online

This course presents the study of the language of medicine, focusing on prefixes, suffixes, word roots and their combining forms. This course includes word construction, spelling, usage, comprehension and pronunciation. Along with terminology, students are provided with information regarding anatomy, symptomatology, pathology, and diagnostic/surgical procedures. This course is open to all SJC students. Prerequisite: A score of 76 on the Accuplacer Reading Test or successful completion of RDNG 113.

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HITP-112 Human Body: Structures and Functions 4 cr. Available Online

This course introduces the student to the basic concepts of physical and chemical operation of the organs and systems of the human body. System reviews to include integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary and reproductive systems.

HITP-120 Introduction to Health Information Technology 3 cr. Available Online

An introduction to the healthcare field in general and the health information management field in particular. This course addresses organizational structures, regulatory agencies, and healthcare reform. The health record is analyzed for content as it relates to quantity, quality, healthcare personnel responsibility, and documentation requirements. Practices such as compliance, credentialing, licensing, and accreditation are studied. Prerequisite: A score of 76 on the Accuplacer Reading Test or successful completion of RDNG 113.

HITP-125 Introduction to Medical Practice Management 3 cr. Available Online

A comprehensive introductory course in the management of medical and dental practices. Types of practices and roles of personnel within the practice are introduced and professional skills competency emphasized. Financial applications, customer service, teamwork, and marketing are explored along with their importance to the quality delivery of care and financial success of the practice. Prerequisite: A score of 76 on the Accuplacer Reading Test or successful completion of RDNG 113.

HITP-130 Pathophysiology: HITP 3 cr. Available Online

An introduction to the nature of disease and its effects on body systems. This course deals with disease processes affecting the human body via an integrated approach to specific disease entities. The course includes a review of clinical and diagnostic tests and basic pharmacology used to identify and treat diseases of the human body. The etiology, pathology, signs and symptoms, diagnostic procedures, complications, treatments and prognosis will be studied.

HORTICULTURE

HORT-110 Introduction to Xeriscape Principles 3 cr.

This course is a scientific exploration into the components of xeriscape principles and practices. It includes plant identification and mechanisms, landscape design, construction, and maintenance, plant selection, and mulching. Semester offered: Fall.

HORT-121 Horticulture Techniques I 3 cr.

This course is an introduction to basic ornamental horticulture. Topics include introductory plant science, nutritional requirements, plant pathology, entomology, propagation techniques, and basic horticultural skills. Semester offered: Fall.

HORT-122 Horticulture Techniques II 3 cr.

An extension of XERC 121, Horticulture Techniques II will introduce pruning techniques, soil science, groundcover and turf grass science, and plant identification focusing on xeric and native plants and invasive plant species. Semester offered: Spring.

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HORT-130 Xeriscape Design and Maintenance 4 cr.

This course examines landscape design principles with emphasis on water and energy conservation. Topics explore plant combination theory and xeriscape irrigation techniques, installation, and maintenance. Students will complete a landscape design using xeriscape principles. Semester offered: Spring.

HUMAN SERVICES

HMSV-111 Introduction to Human Services 3 cr.

An overview of the caregivers, the delivery systems, and the types of services provided within the field of Human Services, with particular emphasis on the development of the field and the roles and functions performed. Service learning required. Prerequisites: APEN 070+ or ENGL 095; APRD 058+ or RDNG 095. Semester offered: Fall and Spring.

HMSV-112 Principles of Interviewing 3 cr.

Provides basic knowledge of the interviewing process with emphasis on developing interviewing skills. The student will develop an awareness of ways in which the interviewer's background, attitudes, and behaviors influence the interview. Videotaped class interviews will provide material for discussion and critique. Prerequisites: HMSV 111 or HMSV 220; APEN 070+ or APRD 058+. Semester offered: Fall, Spring.

HMSV-115 Group Dynamics 3 cr.

Drawing on both theoretical and observer-participation models, the student will explore various relationships as they develop in one-on one, small group, and large group settings. Prerequisites: HMSV 111 or 220; APEN 070+ or APRD 058+. Semester offered: Fall and Spring.

HMSV-211 Human Welfare Systems P and P 3 cr.

This course will take an in-depth look at the development and history of the American public welfare system and its evolution to the existing network of programs and services available to the needy in the United States. This will include an overview and analysis of various agents including interest groups, advocacy coalitions, and executive legislative, and judicial policy processes. The course is required for majors in the Human Services programs to build knowledge of public policy as it pertains to their services and their clientele. This course is cross-listed as HMSV 265. Prerequisites: HMSV 111 or HMSV 220; APEN 070+ or APRD 058+. Semester offered: Fall.

HMSV-220 Introduction to Substance Abuse 3 cr.

This course will provide students with an historical overview of substance abuse to include: drug classes and their basic effects, commonalities among addictive behaviors, an epidemiology for the distribution of substance abuse problems, etiological models for the causes of substance abuse and their implications, as well as an introduction to types and levels of intervention. Prerequisites: APEN 070+ or ENGL 095; APRD 058+ or RDNG 095. Semester offer: Fall, Spring and Summer.

LEARNING SUPPORT

LRNS-111 College Success Strategies 3 cr.

Provides an in depth opportunity for students to learn and adopt methods that promote success in college and in life. Course may be applied towards an elective for an AA degree or certificate. Semesters offered: Fall, Spring, Summer.

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LEGAL ASSISTANT

LEAS-120 Introduction for Paralegals 3 cr.

An introduction to the role of the paralegal including such topics as regulation of the legal profession, legal ethics, law office management, human relations skills, legal terminology, techniques of interviewing, and methods of discovery. Prerequisites: ENGL 099 or APEN 085 and RDNG 113 or APRD 081. Corequisites: LEAS 121 and LEAS 127. Semester offer: Fall.

LEAS-121 American Law for Paralegals 3 cr.

This course is designed to introduce the paralegal student to the American legal system. The course begins with historical and philosophical foundations of the American legal system in order to better understand the policies and concepts of the legal system. The course then focuses on state and tribal legislative processes and administrative agencies. The course provides an introduction to the structure of the federal and state court systems and the method by which lawsuits are initiated and resolved. Prerequisites: ENGL 099 or APEN 085 and RDNG 113 or APRD 081. Corequisites: LEAS 120 and LEAS 126. Semester offer: Spring.

LEAS-122 Torts - Practice and Pleading 3 cr.

Theory and practical application of the law of torts. This course will present the common law basis of tort law. New Mexico and the Navajo Nation common law will be studied by analyzing the establishment of a prima facie tort claim. Students will learn about torts through a study of the elements of the different causes of action. The fundamentals of drafting legal documents normally associated with torts are addressed, both in lecture and in writing assignments. Prerequisite: ENGL 111 and RDNG 113 or APRD 081 or skill-level equivalent. Corequisites: LEAS 123 and LEAS 126. Semester offer: Spring.

LEAS-127 Contract Law 3 cr.

Designed to provide the student with an in-depth exposure to and analysis of law pertaining to contract formation and the resolution of contract disputes. This course will also study Article 2 and 2A of the Uniform Commercial Code, as well as the similarities and differences of general contract law and Article 2 and 2A of the Uniform Commercial Code of Navajo law. Prerequisites: ENGL 099 or APEN 085 and RDNG 113 or APRD 081. Corequisites: LEAS 120 and LEAS 121. Semester Offered: Fall.

MATHEMATICS

MATH-113 Applied Mathematics for Vocational Studies 3 cr.

Instructs students in the knowledge of addition, subtraction, multiplication and division of whole numbers, fractions and decimals. Topics also include ratios and proportions, percents, standard and metric measurements and conversions. Basic fundamentals of algebra, operations of rational numbers, algebraic expressions, solving equations, formulas, geometry and trigonometric concepts of sine, cosine, tangent and the Pythagorean Theorem. This course emphasizes application models required in vocational programs. Prerequisite: Grade of "C" or better in MATH 095 or Accuplacer score of 66+ (arithmetic) or 41+ (algebra). Semester offered: Fall and Spring.

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MATH-114 Math for Health Careers 3 cr. Available Online

This course introduces the computational skills needed to study in health careers programs. Topics include operations on fractions, decimals, percents, as well as the use of formulas, ratio and proportion, and measurement. Students will solve word problems specific to medication orders. Prerequisite: Grade of "C" or better in MATH 095 or Accuplacer score of 66+ (arithmetic) or 41+ (algebra). Semester offered: Fall, Spring and Summer On Demand.

MATH-130 Conceptual Mathematics 3 cr. Available Online

Practical mathematical concepts for non-science majors. Topics include set theory, geometry, counting methods, probability, statistics, and finance. Critical thinking and problem solving skills are stressed. Prerequisite: Grade of "C" or better in MATH 096 or Accuplacer score of 61-103 (algebra). Semester Offered: Fall, Spring, and Summer.

MATH-180 Trigonometry 3 cr.

Instructs the student in the knowledge of triangles, radian and degree measure, trigonometric functions, trigonometric identities, properties, inverse trigonometric functions, polar coordinates, vectors. Prepares the student to utilize trigonometry in the analysis of calculus. Prerequisite: Grade of "C" or better in MATH 115 or Accuplacer score of 104-120. Semester offered: Fall, Spring and Summer.[NM Common Course Number MATH 1213, Area II: Mathematics Core]

MATH-185 College Algebra 3 cr. Available Online

Instructs students in the knowledge of linear, piecewise, quadratic, polynomial, rational, inverse, exponential and logarithmic functions; function topics include finding the average rate of change, analyzing graphs, graphing using transformations, finding roots in the real and complex number systems, and constructing functions to model real world applications. Other topics include systems of linear equations and inequalities, matrices, linear programming, sequences and series. Prerequisite: Grade of "C" or better in MATH 115 or Accuplacer score of 104-120. Semester offered: Fall, Spring and Summer.[NM Common Course Number MATH 1113, Area II: Mathematics Core]

MATH-188 Calculus I (3+2p) 4 cr.

Instructs the student in the methods of differential calculus. Topics include elementary algebraic and transcendental functions, limits, continuity, differentiation and optimization. Mathematical software will be utilized throughout the course to expose students to computer algebra systems. Prerequisite: Grade of "C" or better in MATH 185 and MATH 180. Semester offered: Fall, Spring, and Summer.[NM Common Course Number MATH 1614, Area II: Mathematics Core]

MUSIC

MUSI-110 Introduction to Music 3 cr.

Theory, elementary study of form, and instruments of the orchestra. A music vocabulary is formed to help the layperson understand musical organization. Music history by period, composer, and composition. Prerequisite: APEN 85+ or ENGL 099. Semester offered: Fall and Spring. [NM Common Course Number MUSI 1013, Area V: Humanities/Fine Arts Core]

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MUSI-111 Music History 3 cr.

Exploration of the classical music of western society from its earliest origins through the late 20th century innovations. To gain a better understanding of classical music, this broad music history course explores the Medieval, Renaissance, Baroque, Classical, Romantic, and Modern periods of music. Prerequisite: APEN 85+ or ENGL 099. Semester offered: Spring.[NM Common Course Number MUSI 1313, Area V: Humanities/Fine Arts Core]

MUSI-112 World Music 3 cr.

World Music gives students a concrete grasp of the rich diversity of the planet's music by highlighting the most important social and musical aspects of each culture. The music of India, China, Japan, Indonesia, Africa, Latin America, and Native Americans is studied. Prerequisite: APEN 85+ or ENGL 099. Semester offered: Fall.[NM Common Course Number MUSI 1113, Area V: Humanities/Fine Arts Core]

MUSI-114 Fundamentals of Music Theory 3 cr.

Introduction to basic materials and concepts of music theory, melody, rhythm, harmony, form and expression, through involvement as singers, players, creators, movers, listeners and readers of music. Designed for beginning music students as well as those with little or no musical training. Open to all students. Semester offered: Fall and Spring.[NM Common Course Number MUSI 1213, Area V: Humanities/Fine Arts Core]

MUSI-175 Audio Amplification 3 cr.

Introduction to sound reinforcement techniques; knowledge of amps, mics, mixing boards; cables, proper connections, etc. Includes hands on experience with sound systems in various performance situations. Some lab hours will fall during the class period, and some lab hours will occur at other times of the week as activities become available. Semester offered: Fall (and as needed in the Spring).

NATIVE/NAVAJO STUDIES

NAVA-111 Elementary Navajo 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, conversations, and culture. Prerequisites: APEN 40+ and APRD 39+ or permission of instructor. Semester offered: Fall, Spring, and Summer.

NAVA-112 Elementary Navajo II 4 cr.

Continuation of NAVA 111. Prerequisite: NAVA 111 or Permission of instructor. Semester offered: Fall, Spring, and Summer.

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OUTDOOR LEADERSHIP AND RECREATION

OLER-120 Challenge Course I (low) 3 cr.

This course is designed to introduce students to the design and application of a challenge course, and to train students in the technical skills required to instruct and sequence various activities on the Low Challenge Course. The course will combine classroom lecture with experiential learning on San Juan College's High Endeavors Challenge Course. Students will gain an understanding of the history and evolution of challenge course design and purpose. Additionally, individual element description and safety, activity introduction and framing, spotting techniques, instructor awareness, activity variations, and introductory processing skills will be covered during this course. Does not meet physical education activity requirement for AA degree. Semester offered: Fall and Summer.

OLER-220 Challenge Course II (High) 3 cr.

The course will begin with a brief review of the history, purpose, and application of challenge courses before transitioning to specific activities involved with the High Challenge Course. Does not meet physical education activity requirement for AA degree. Semester offered: Spring and Summer.

PHYSICS

PHYS-111 Intro to Physics 4 cr. Available Online

This course is not a lab science course and does not fulfill the requirement for lab sciences in the Associate of Arts degree. A primarily conceptual approach to classical physics; mechanics, heat, sound, optics, electricity, and magnetism. Intended for non-science majors who have not had high school physics. Prerequisite: MATH 096 or higher within last three years, or Math ACCUPLACER Placement, and RDNG 095 or higher, or Reading ACCUPLACER Placement. Semester offered: Fall, Spring, or on Demand.

PHYS-211 General Physics I (3+2P) 3 cr.

Non-calculus treatment of Newtonian mechanics, fluids, and sound. Satisfies requirements for most pre-medical and pre-dental programs and some science programs. Prerequisites: MATH 180 or high school trigonometry and MATH 185 or higher within last three years, RDNG 095 or higher or Reading ACCUPLACER placement, and ENGL 099 or higher or English ACCUPLACER placement. Semester offered: Fall and Spring . [NM Common Course Number PHYS 1114, Area III; Laboratory Science Core]

PHYSICAL EDUCATION

PHED-113 Introduction to Personal Training 3 cr.

The purpose of this course is to instruct and improve student's knowledge on how to: develop the skills and knowledge necessary to be a Personal Trainer; begin preparation to take and pass a Personal Trainers Certification; develop the ability to critically think through and apply information acquired to make rational decisions associated with fitness training. Semester offered: Fall and Spring.

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PHILOSOPHY

PHIL-110 Introduction to Philosophy 3 cr.

A historical survey of the main branches of philosophy; metaphysics, theory of knowledge, ethics, and aesthetics. Some treatment of the philosophies of religion, language, science, political, and social philosophy. Prerequisites: APRD 80+ or ENGL 113; APEN 84+ or ENGL 111. Semester offered: Fall and Spring. [NM Common Course Number PHIL 1113, Area V: Humanities/Fine Arts Core]

PHIL-115 Introduction to Ethics 3 cr.

The philosophical examination of the concept of morality and development of an appreciation for the difficulty of ethical judgments in practice. Prerequisites: APRD 80+ or ENGL 113; APEN 84+ or ENGL 111. Semester offered: Fall and Spring. [NM Common Course Number PHIL 2113, Area V: Humanities/Fine Arts Core]

PHOTOGRAPHY

PHOT-150 Basic Photography 3 cr.

This course is designed for the beginning photography student. The students will learn camera operation, the interaction of light on film, design principles, lighting, film processing, and printing black and white photographs in the darkroom. An introduction to the history of photography will enable students to understand the context of photography and image creation.

PHOT-160 Digital Photography 3 cr. Available Online

This course teaches basic digital editing using PhotoShop CS2. Students will learn how to operate a digital camera, download images, basic editing workflow and printing. Color theory will be introduced and creating artistic visual images will be emphasized. Semester offered: Fall and Spring.

PRE-NURSING

PNUR-110 Nurse Aide Certification 6 cr.

This course prepares students with skills required to care for the sick and infirm under the supervision of an RN (Registered Nurse), LPN (Licensed Practical Nurse), or other health professional in nursing homes, hospitals, home care agencies, and skilled care facilities. Students are introduced to the nursing process: Assessment, Planning, Implementation, and Evaluation, which incorporates beginning critical thinking skills necessary to continue education in nursing and allied health fields. The course classroom, college skills lab, and clinical experience in local health care facilities meet the requirements of the Omnibus Reconciliation Act of 1987 (OBRA) and qualify individuals to take the State Certification Examination upon completion in accordance with this law. Class has hybrid WebCT component Semester offered: Fall, Spring.

POLITICAL SCIENCE

POLS-110 Introduction to Political Science 3 cr.

Political Science 110 will introduce students to the major concepts of the discipline of political science, and will teach students to apply these concepts to current and historical events. The course is designed to enable students to think critically about local, national, and world politics. Prerequisites: APEN 70+ or ENGL 095; APRD 058+ or RDNG 095. Semester offered: Fall, Spring. [NM Common Course Number POLS 1113, Area IV; Behavioral/Social Science Core]

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POLS-150 American Political Issues 3 cr.

Major problems of American society in their political implications and possible solutions. Prerequisites: APRD 81+ or RDNG 113; APEN 70+ or ENGL 095. Semester offered: - Spring.

POLS-160 International Political Issues 3 cr.

The course is designed to familiarize students with current developments, issues, and actors in world politics. Prerequisites: APRD 81+ or RDNG 113; APEN 70+ or ENGL 095. Semester offered: - Spring

POLS-210 State and Local Government 3 cr.

A study of the history, nature, organization and operation of state and local government in the United States, including an analysis of their relationship with the federal government. Semester offered: On Demand.

POLS-220 Tribal Politics and Government 3 cr.

Examines Native American political issues and government dynamics in contemporary and historical times. Themes include: history and structures of tribal government; cultural issues; intergovernmental dynamics; and the role of tribal politics in contemporary Native American life. Cross-listed as TGOV 120. Semester offered: Fall

POLS-250 American National Government 3 cr. Available Online

Legislative, executive, and judicial organization and processes; popular and group influence; efforts to meet modern social and economic problems by political means. Prerequisites: APRD 80+ or RDNG 113; APEN 84+ or ENGL 111. Semester offered: Spring.[NM Common Course Number POLS 1123, Area IV; Behavioral/Social Science Core]

PSYCHOLOGY

PSYC-120 Introduction to Psychology 3 cr. Available Online

Introduces students/learners to the science of human behavior and mental processes. The course will survey contemporary research and theory in psychology with the goal of broadening the students' understanding of self and others. Prerequisites: APEN 070+ or APRD 058+. Corequisites: ENGL 095, RDNG 095. Semester offered: Fall, Spring and Summer.[NM Common Course Number PSYC 1113, Area IV; Behavioral/Social Science Core]

READING

RDNG-113 Academic Reading and Study 3 cr. Available Online

Develop academic reading and study skills for college, using academic textbook material. Prerequisites: Accuplacer Reading score of 58-80 or successful completion of Reading 095 (C or better). Semester offered: Fall, Spring, and Summer.

RUSSIAN

RUSS-111 Elementary Russian I 3 cr.

The purpose of this beginning course 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.

RUSS-112 Elementary Russian II 3 cr.

A continuation of RUSS 111, Elementary Russian I. Prerequisite: RUSS 111 or permission of instructor. Semester offered: Fall, Spring.

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AMERICAN SIGN LANGUAGE

SIGN-111 Elementary American Sign I 3 cr.

Basics of the gestural system, grammar, idioms, and cultural context of American Sign Language as used in typical dialog. Prerequisites: APEN 40+ and APRD 39+ or permission of instructor. Semester offered: Fall, Spring and Summer.

SIGN-112 Elementary American Sign II 3 cr.

A continuation of SIGN 111. Prerequisite: SIGN 111 or permission of instructor. Semester offered: Fall, Spring.

SOCIOLOGY

SOCI-110 Introduction to Sociology 3 cr. Available Online

The study of human groups, the social arrangements that people create, the many ways of being human, and the changing world in which we live. Prerequisites: APEN 070+ or ENGL 095; APRD 058+ or RDNG 095. Semester offered: Fall, Spring and Summer.[NM Common Course Number SOCI 1113, Area IV; Behavioral/Social Science Core]

SPANISH

SPAN-111 Elementary Spanish 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 and Summer

SPAN-112 Elementary Spanish II 4 cr.

Continuation of SPAN 111, Elementary Spanish I. Prerequisites: SPAN 111 or Permission of instructor. Semester offered: Fall and Spring.

SPEECH

SPCH-110 Public Speaking 3 cr.

The purpose of this class is to develop students' public speaking skills so that they can become more confident and effective speakers. Students will write and present both persuasive and informative speeches. Corequisites: RDNG 095 and ENGL 095. Semester offered: Fall, Spring and Summer. [NM Common Course Number COMM 1113, Area I; Communications]

SPCH-111 Interpersonal Communication 3 cr. Available Online

This course is designed to increase student's awareness of the role that interpersonal communication plays in creating and maintaining personal and professional relationships. Emphasis of instruction is on improving one-to-one communication skills. Topics include self-concept, perception, non-verbal communication, listening, feedback, and effective use of language. Corequisites: RDNG 095. Semester offered: Fall, Spring and Summer.[NM Common Course Number COMM 1213, Area I; Communications]

SPCH-120 Business and Professional Communication 3 cr.

This course develops the interpersonal, small group, and public communication skills most useful in business and professional organizations. Corequisite: RDNG 095. Semester offered: Spring of even numbered years.

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TECHNOLOGY

TECH-110 Industrial Technology I 4 cr.

General study of concepts around which technology is based. Includes electromotive force, power, energy, and how they are used. Basic concepts of electricity, light, and heat, and how they are used in electronics. Covers many facets of technology. Semester offered: Spring.

THEATRE

THEA-110 Introduction to Theatre 3 cr.

This course examines the aesthetic and practical nature of theatre by discovering, analyzing, and evaluating all aspects of the theatre experience. This includes history and criticism, playwriting, directing, acting, designing and producing. Prerequisites: APEN 39+ and APRD 38+ or Permission of instructor. Semester offered: Fall and Spring. [NM Common Course Number THTR 1013, Area V: Humanities/Fine Arts Core]

THEA-111 Acting I 3 cr.

This course introduces students to basic acting concepts, terminology, and methodology through voice and movement, theatre games, improvisation, text/character analysis and performance. Semester offered: Fall and Spring.

THEA-112 Acting II 3 cr.

This course is designed to delve further into the dynamics of performance learned in Acting I. Through exploration of techniques and methodologies of various theatre innovators, students will complete analysis, rehearsal, and performance of scenes from contemporary plays. Prerequisite: THEA 111 or Permission of instructor. Semester offered: Spring.

THEA-120 Introduction to Film 3 cr.

Students will survey and take a critical approach to significant films, film styles and genres, and film directors from the advent of the moving image to the present. Through screenings and discussions, the students will analyze aesthetic, structural and thematic aspects of film, as well as acting and directing techniques. Prerequisites: APEN 070/ENGL 095; APRD 058/RDNG 095; or Permission of instructor. Semester offered: Fall

THEA-140 Introduction to Costuming 3 cr.

Students will learn basic techniques of costume construction for the stage. This includes sewing and craft applications for building costumes. Students will work on costumes and/or on a running crew in a lab situation for the fall production. Semester offered: Fall, even numbered years.

TRIBAL GOVERNANCE

TGOV-120 History of Tribal Governments and Structure 3 cr.

Presents the history of the tribal government from its beginning to its present state. Addressed are the structural system, political concepts, cultural issues, and catalytic dynamics of the tribal government. Semester offered: Fall.

TGOV-130 Tribal Organizational Behavior 3 cr.

The study of individual and group behavior in a tribal organizational setting; comparison of Western theories and concepts of organizational behavior to the tribal cultural teachings of behavior. Semester offered: Summer.

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TGOV-150 Ethics in Tribal Government 3 cr.

An introduction to the rudiments of ethical responsibility of leaders and the workforce of a tribal organization, and the effects of this ethical responsibility to the tribal community and its citizenry. Semester Offered: Summer.

TGOV-180 Tribal Resource Management 3 cr.

The resources of a tribal nation including tribal land and environment issues that cover comprehensive community planning, livestock grazing areas, economic development, royalties, taxes, water rights, energy and power, and the laws pertaining to these issues. Semester offered: Fall.

VETERINARY TECHNOLOGY

VETT-110 Medical Terminology 1 cr. Available Online

Entry-level course designed to provide the student with a foundation in the language of veterinary medicine, focusing on prefixes, suffixes, word roots and their combining forms.

VETT-112 Veterinary Business Procedures 2 cr. Available Online

Entry-level course designed to give the student the basic skills necessary to function as a receptionist in a veterinary practice.

VETT-113 Small Animal Disease I 2 cr. Available Online

Entry-level course designed to develop the basic knowledge of mammalian diseases and disease processes that may be encountered by a veterinary technician.

VETT-114 Pharmacology and Med Therapy 2 cr. Available Online

Entry-level course in the basic classification and properties of the common pharmaceuticals used in veterinary medicine.

VETT-115 Veterinary Anesthesia and Surgical Assisting I 2 cr. Available Online

Entry-level course designed to help develop a strong foundation in anesthetic skills, surgical assisting skills, and perioperative procedures.

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CAREER AND TECHNICAL EDUCATION COURSES

ALLIED HEALTH

ALHT-111 Introduction to Allied Health 3 cr.

An overview of traditional health care systems, team approach delivery, and health professionals' roles and functions. It addresses consumer health needs, trends, and issues. Recommended for students considering programs such as Nursing, Dental Hygiene, Physical Therapist Assisting or Health Information Technology or undecided.

ART

ARTS-110 Orientation in Art 3 cr.

Emphasis on contemporary approaches to painting, sculpture, architecture and industrial arts and crafts. Understanding of materials and processes and basic design principles is stressed through direct experience and heightened perception. Prerequisites: APEN 070+ or ENGL 095; APRD 058 or RDNG 095. Semester offered: Fall and Spring. [NM Common Course Number, ARTS 1013, Area V; Humanities and Fine Arts Core]

ARTS-112 Beginning Drawing I 3 cr.

Utilizes various methods and materials with emphasis on the perception of form in many areas of subject matter and consideration of the elements of composition. Semester offered: Fall and Spring. processes and techniques of Navajo weaving, with a special emphasis on advanced weaving techniques and design.

ARTS-265 Beginning Sculpture I 3 cr.

An introduction to sculpture and methods and materials using stone and wood carving, clay, and various modeling techniques. Semester offered: On Demand.

AUTO BODY

AUBO-110 Intro to Auto Body I 9 cr.

This course is a prerequisite to all auto body courses. Students will receive instruction in safety, hand tools, basic body shop equipment, oxy-acetylene, MIG welding, and basic panel alignment. Corequisite AUBO 115. Semester offered: Fall and Spring.

AUBO-120 Auto Body Electrical 4 cr.

This will consist of the theory of electricity and solid state electronics with emphasis on Ohm's Law. Meters, schematics, trouble shooting techniques, basic start, battery, and charging system tests will be covered. Semester offered: - Fall and Spring.

AUBO-125 Collision Repair 9 cr.

This course will involve the student in all phases of minor collision repair: sheet metal repair, body panel replacement, and help develop good, safe work habits for the student. Prerequisite: AUBO 115. Semester offered: Fall and Spring.

AUBO-135 Automotive Refinishing 9 cr.

Includes all phases of surface preparation and refinishing. Students will receive instruction on a variety of refinishing problems. The student will also be instructed on safe work habits, using base coat/clear coat systems. Prerequisite or corequisite AUBO 125. Semester offered: Fall and Spring

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AUBO-235 Advanced Auto Body Repair I 9 cr.

This course will involve the student in all phases of major collision repair. The course will cover unibody, frame measurement, and repair. This course also covers suspension and alignment repair. Safety will be emphasized throughout the course. Prerequisite: AUBO 125. Semester offered: Fall and Spring.

AUBO-236 Advanced Auto Body Repair II 9 cr.

The Auto Body student who has successfully completed AUBO 125 and AUBO 135 will be able to specialize in collision repair and/or automotive refinishing. This course is designed for the upgrading of a student's ability in the auto body field. Prerequisite: AUBO 135. Prerequisite or Corequisite: AUBO 235. Semester offered: Fall and Spring.

AUBO-240/241 Body Shop Management I and II 6 cr.

This course is offered to degree seeking and advanced auto body students. All phases of body shop management will be covered. Prerequisite: AUBO 235. Semester offered: Fall and Spring.

AUTOMOTIVE TECHNOLOGY

AUTE-111 Steering and Suspension 5 cr.

A theory and shop course to introduce the student to steering geometry, front and rear suspension service, wheel alignment, power steering service, and wheel balancing. Safety is emphasized. Corequisite: AUTE 112. Semester offered: Fall.

AUTE-112 Brakes 5 cr.

A study of the theory and diagnostic procedures of disc and drum brake systems, including anti-lock brakes. Instruction on machining of discs, drums, and rebuilding of brake hydraulic components will be given. Safety is emphasized. Corequisite: AUTE 111. Semester offered: Fall.

AUTE-113 Basic Electrical 4 cr.

Basic fundamentals of electrical theory, magnetism, current flow, Ohms Law, series, parallel, and series parallel circuit calculations. The use of basic meters and their application to circuit diagnosis will be taught. Safety is emphasized. Semester offered: Fall and Spring.

AUTE-114 Electrical Systems 6 cr.

Diagnosis of the general electrical system to include battery, starting, charging, lighting, gauges, horn, wiper/washer and accessories using meters and schematics with standard troubleshooting procedures. Prerequisites or Corequisite: AUTE 113. Corequisite: AUTE 117. Semester offered: Fall and Spring.

AUTE-115 Manual Drive Train and Transaxles 6 cr.

The theory and repair of manual transmission, differentials, clutches, transaxles and drive axles will be covered. Diagnosis and troubleshooting will be stressed. Safety is emphasized. Corequisite: AUTE 116. Semester offered: Spring.

AUTE-116 Auto Transmission and Transaxles 6 cr.

The operating principles of automatic transmissions, diagnosis, electrical and electronic controls, and repair will be covered. Safety is emphasized. Semester offered: Spring. Corequisite: AUTE 115.

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AUTE-117 Engine Performance 12 cr.

This course will cover the use of engine performance test equipment, fuel system operation, fuel injection, ignition systems, starting and charging systems. A systematic method of troubleshooting will be taught. Safety is emphasized. Prerequisite: AUTE 113. Co/prerequisite: AUTE 114. Semester offered: Spring.

AUTE-118 Engine Repair 8 cr.

This course will cover the principles and operation of the internal combustion engine. Engines will be properly disassembled, inspected, measured, and reassembled. Safety is emphasized. Corequisite: AUTE 119. Semester offered: Fall.

AUTE-119 Heating and Air Conditioning 4 cr.

A theory and shop course to teach the student automotive air conditioning and heating systems as they apply to automotive vehicles. The use of test equipment will be emphasized and the student will learn to diagnose, evacuate, recover refrigerant and recharge air conditioning systems. Safety is emphasized. Co/prerequisite: AUTE 113. Corequisite: AUTE 118. Semester offered: Fall.

AVIATION TECHNOLOGY

AVIA-110 Aviation Ground School 3 cr.

Covers the basic study of federal aviation regulations, meteorology, navigation, theory of flight, use of radar and general service of aircraft. Semester Offered: On Demand.

AVIA-266 Meteorology for Pilots 3 cr.

The basic study of meteorology which includes the earth's atmosphere and the elements that affect it, air masses and air mass modification, in-flight weather hazards, aviation weather reports, and weather forecasts will be offered. Corequisite: AVIA 120. Semester offered: Fall, Spring and Summer.

BUILDING TRADES (CARPENTRY)

CARP-111 Beginning Carpentry I 8 cr.

Applied theory and practice dealing with safety, blueprints, design, specifications, and hand/power tools. Corequisite: CARP 115. Semester offered: Fall.

CARP-115 Beginning Carpentry II 10 cr.

Applied theory and practice in plot and foundation layout, floor and wall framing, and roof and exterior wall construction. Corequisite: CARP 111. Semester offered: Fall.

CARP-121 Intermediate Carpentry I 8 cr.

Applied theory and practice in form and residential concrete, window and door installation, and finishing materials. Prerequisites: CARP 111, CARP 115. Corequisite: CARP 127. Semester offered: Spring.

CARP-127 Intermediate Carpentry II 10 cr.

Applied theory and practice in interior wall material and application, exterior trim and finish, and finishing materials. Corequisite: CARP 121. Semester offered: Spring.

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COMPUTER GRAPHICS

COGR-160 Computer Graphics I 4 cr.

Introductory course includes concepts of computer graphics, modeling techniques, interfaces, terminology, and color theory; principles of two dimensional computer animation, image processing, and presentation media; and computer design theory. Primary emphasis upon PC computer software to produce animations of logos, titles and text, graphs, cartoon characters, cycling colors and special effects; presentation software; desktop publishing; and still image processing. Theory will include design criteria, storyboard preparation, image manipulation, and hands-on computer use for instructional, marketing, graphic design, and artistic purposes. Semester offered: Fall.

COGR-165 Computer Graphics II 4 cr.

This course is continuation of the Computer Graphics I with an emphasis on three-dimensional design, process, presentation, and imaging using PC-based computer graphics media and animation software, with a minor emphasis upon MAC-based programs and processes. This course will include preparation of three-dimensional images used for presentations, printed materials, and short animations. A final project will involve using composite three-dimensional objects for visualizing abstract concepts, solid objects in motion, or moving figures for education, sales, and marketing purposes. Prerequisite: COGR 160. Semester offered: Spring.

COSMETOLOGY

COSM-110 Theory I 3 cr.

Introduces the student to the cosmetology industry concerning professional image, ethics, first aid, NM state laws and regulations, chemistry and electricity.

COSM-140 Facials 3 cr.

Introduces the related theory, anatomy, physiology, procedures and practical applications, products, theory of massage, various skin conditions, makeup application, removal of unwanted hair, client consultations, record keeping and safety.

COSM-151 Manicuring/Pedicuring 2 cr.

Focuses on advanced nail techniques, including nail enhancements, related theory, application of nail tips, overlays, acrylic nails, and fiberglass nails. Also included is the study of nail disorders, nail diseases and nail irregularities.

COSM-171 Hairstyling 3 cr.

Increases the student's knowledge in advanced styling to include related theory, advanced procedures and practices, long hair techniques, braiding, hair extensions, hair weaving, corn rowing and hairpieces.

COSM-195 Salon Business and Retail Sales 3 cr.

Studies the business aspect of a salon. It includes related theory, opening a salon, business planning, written agreements, regulations, laws, salon operation, policies, practices, personnel, compensation, payroll deductions, telephone techniques, advertising, retail sales, client communications, public relations and insurance.

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DIESEL MECHANICS

DIME-110 Diesel Engine Overhaul 9 cr.

Study of the diesel fueled internal combustion engine. Complete disassembly and reassembly and final tune-up. Diagnosis of system malfunction. Basic failure analysis. Dynamometer testing of engines. Diagnosis and repairs will be performed on various manufacturer equipment and components. Safety will be strictly enforced. Corequisite DIME 111. Semester offered: Fall even numbered years.

DIME-111 Fuel Systems 5 cr.

Study of the theory and operation of diesel fuel injection equipment. Diagnosis and repairs will be performed on various manufacturer equipment and components. Safety will be strictly enforced. Corequisite DIME 110. Semester offered: Fall even numbered years.

DIME-113 Preventive Maintenance Inspection 5 cr.

Study of vehicle/equipment inspections and practices, preventive maintenance scheduling, inspection techniques, pre-and post-repair inspections, and record keeping. Diagnosis and repairs will be performed on various manufacture equipment and components. Safety will be strictly enforced. Semester offered: Fall.

DIME-123 Brakes 5 cr.

Study of the theory and operation of medium and heavy duty truck air brake systems, hydraulic brake systems, retarders and foundation brake components. Corequisites: DIME-124, DIME-230. Semester offered: Spring.

DIME-124 Drivetrains 4 cr.

Study of the theory and operation of medium and heavy duty truck manual drivetrains, clutches, manual transmissions, drivelines, differentials and final drive components. Corequisites: DIME-123, DIME-230. Semester offered: Spring.

DIME-125 Steering 5 cr.

Theory and operation of steering systems for medium and heavy-duty trucks. Steering component diagnosis and repair, wheel alignment and wheel end component adjustment, inspection and repair. Corequisites: DIME-126, DIME-240. Semester offered: Fall.

DIME-126 Suspensions 4 cr.

Theory and operation of suspension systems for medium and heavy duty trucks. Corequisites: DIME-125, DIME-240. Semester offered: Fall.

DIME-127 Fluid Power 5 cr.

A study of liquids and their ability to accomplish work. Hydrodynamic, hydrostatic and computer-controlled hydraulic systems will be discussed. Corequisite: DIME-128. Semester offered: Spring.

DIME-128 HVAC 4 cr.

Studies the theory and operation of mobile HVAC systems in equipment and medium/heavy duty on-highway trucks. Corequisite: DIME-127. Semester offered: Spring.

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DIME-129 Drivability 5 cr.

Study of vehicle/equipment electronics, engine management and emissions systems. Will incorporate the use of electronic service tools, software programs, on-board diagnostics, multiplexing and diesel emission after treatment. Corequisite: DIME-213. Prerequisite: AUTE-113. Semester offered: Spring.

DIME-213 Advanced Electrical 5 cr.

Study of vehicle/equipment electrical and electronic control and monitoring systems., including senders, sensors, wiring, etc. Diagnosis and repairs will be performed on various manufacturers' equipment and components. Corequisite: DIME-129. Prerequisite: AUTE-113. Semester offered: Spring.

DIME-230 Advanced Brakes and Drivetrains 5 cr.

Study of hydraulic operated/assisted drive trains. Retarders, variable, fixed and lockup torque converters, shuttle shift/power-shift electronic control transmissions, differentials and final drives, foundation brake components for off highway/construction/mining equipment will be covered. Diagnosis and repairs will be performed on various manufacturer equipment and components. Safety will be strictly enforced. Corequisite: DIME 130. Semester offered: Spring odd numbered years.

DIME-240 Advanced Steering and Suspension 5 cr.

This course will be based on the study of steering systems and suspension systems for off highway equipment. Diagnosis and repairs will be performed on various manufacturers' equipment and components. Safety will be strictly enforced. Corequisite: DIME 140. Semester offered: Spring even numbered years.

DRAFTING

DRFT-150 Computer-Aided Drafting (CAD) 4 cr.

A course designed to train students in the use of computer-aided drafting equipment to produce engineering drawings in two-dimensional format, using the basic draw and edit commands. Corequisite: DRFT 110. Semester offered: Fall and Spring.

EMERGENCY MEDICAL SERVICES

EMSP-115 EMT-Basic 10 cr.

Includes the minimum standard DOT and New Mexico curriculum information as well as additional curricula that prepare an EMT-Basic to stay on the forefront of pre-hospital field techniques and the advancing knowledge base of pre-hospital care. Prerequisites: Accuplacer Reading 82+

FIRE SCIENCE

FIRE-110 Firefighter I 9 cr.

Teaches the basic principles and skills of firefighting. It is designed to develop a student starting with little or no knowledge of firefighting into a firefighter with a good knowledge. The course covers the characteristics and science of fire and its behavior. It exposes the student to some of the basic principles of firefighting, as well as some of the basic strategies and tactics employed to extinguish fire. Finally, this course covers many of the additional functions that firefighters may be called on to accomplish. Basic course in firefighting for entry-level firefighters.

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FIRE-220 Mandated Firefighter Training 5 cr.

This course includes a minimum of 64 hours of lecture in firefighting disciplines required of line firefighters responding to calls. Included are many short courses mandated by OSHA for responses to certain types of incidents or are needed in order to perform to the standard of care accepted by the sponsor agency. Included in this course are such classes as Cardiopulmonary Resuscitation (CPR), Coaching the Emergency Vehicle Operator (CEVO), Blood-borne Pathogens Training, Semi-Automatic Defibrillator Training and S130/S190 Wild Land Firefighting Safety Courses. Each of these classes is taught in accordance with the curriculum and course recommendations of the agency producing the curriculum. Prerequisites: FIRE 110, FIRE 120.

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.

HEALTH INFORMATION TECHNOLOGY

HITP-110 Medical Terminology 3 cr.

This course presents the study of the language of medicine, focusing on prefixes, suffixes, word roots and their combining forms. This course includes word construction, spelling, usage, comprehension and pronunciation. Students are provided with information regarding anatomy, symptomatology, pathology, and diagnostic/surgical procedures. Open to all SJC students. Prerequisite: A score of 76 on the Accuplacer Reading Test or successful completion of RDNG 113.

INSTRUMENTATION AND CONTROLS TECHNOLOGY

INST-140 Applied Basic DC Circuits 3 cr.

Introduction to electrical fundamentals, energy sources, Ohm's law, Watt's law, series, parallel, and series -parallel circuit analysis, Kirchoff's law, Thévenin's theorem, superposition, maximum power transfer, and other theorems. Use of digital multimeters and other electronics instruments will be examined. Corequisite: MATH 096 or math Accuplacer placement. Semester Offered: Fall, Spring and Summer.

INST-145 Applied Basic AC Circuits 3 cr.

Alternating current theory to include impedance, capacitive reactance, and inductive reactance in series, parallel, and series-parallel combination, resonance and impedance in RLC circuits. Corequisite: MATH 113. Prerequisite: INST 140. Semester offered: Fall, Spring and Summer.

INST-160 Digital Electronics 5 cr.

An introduction to combination and sequential logic circuits and logic gates, Data Bus Control, binary codes, analog to digital and digital to analog conversions, multiplexing, adders and comparators. Prerequisite: INST 140. Semester Offered: Spring.

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INST-171 Motors and Controls 5 cr.

This course offers an introduction to motors and motor controls. Various kinds of AC/DC machines will be investigated including AC motors and alternator, DC motors and generators, stepper and servo-motors. Prerequisite: INST 145. Semester offered: Fall and Spring.

INST-180 Semiconductor Circuits 5 cr.

An introduction to semiconductor devices, semiconductor theory, characteristic curves, diodes, zener diodes, bipolar transistors, CE, CC, and CB amplifiers, Class A, B, and C operation, load lines and quiescent points, FET. Prerequisite: INST 145. Semester Offered: Fall.

INST-190 Principles of Industrial Measurement 5 cr.

An introduction to the basic principles of process measurement, including techniques for the measurement of flow, level, temperature, pressure, and analytical process variables. Semester offered: Spring.

MACHINE SHOP

MASH-115 Machine Shop Blueprint Reading 3 cr.

Introduction to language of lines, sketching, reading, and interpreting detail working drawings. Semester offered: Fall and Spring.

MASH-116 Basic Machine Shop 4 cr.

Course is an introduction to the machine shop environment. Operations of the drill press, band saw, lathe, and layout of tools identification will be covered. The course will also include basic lathe and general machining operations.

MASH-117 Machinist Measurements 3 cr.

Course will cover measurement methods used in the machining industry. All measuring devices and methods used in the machining industry will be covered. Student will practice taking cuts, selecting proper measuring device and taking measurements.

MASH-118 Basic Lathe Operations 4 cr.

Course will cover basic tooling and lathe operations. Carbide and HSS turning uses are focused on. Feeds and spindle speeds are emphasized throughout the course. An introduction to the milling machine is also covered.

MASH-119 Single Point Threading 3 cr.

The study and application of single point threading on engine lathe. Tool grinding, fundamentals of threading, thread nomenclature, machine setup, spindle speeds, tool geometry, HSS, braised carbide and insert threading tools will be covered.

MASH-122 Basic Milling Operations 4 cr.

Course covers basic milling operation, milling machine nomenclature, controls and applications of face milling, side milling, shoulder milling, vise and head indication, and speed feeds and depth of cuts. The selection of tools, tooling applications, HSS, solid carbide, and insert type tooling are also included.

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MASH-123 Machining Calculations 3 cr.

Course demonstrates the fundamentals of feeds and speeds to machine operators. Speeds and feeds on milling machine tooling (both HSS and carbide inserts) are covered as well as speeds and feeds for single point tooling on lathe operations.

MASH-124 Precision Surface Grinding 4 cr.

Introduction to precision grinding, machine safety, setup, basic grinding operations, coolants, stone dressing, and proper wheel selection. The proper use of fixtures and fastening devices used in surface grinding, surface grinding theory, care, maintenance and lubrication of the surface grinder are covered. Basic instruction of tool post grinding attachment on engine lathe will be demonstrated.

MASH-129 Tool Grinding 3 cr.

Course pays close attention to the grinding, sharpening and dressing of a variety of different cutting tools. Different tool geometrics are examined and used for the corresponding materials being machined.

PRE - NURSING

PNUR-110 Nurse Aide Certification 6 cr.

This course prepares students with skills required to care for the sick and infirm under the supervision of a Registered Nurse, Licensed Practical Nurse, or other health professional in nursing homes, hospitals, home care agencies, and skilled care facilities. Students are introduced to the nursing process: Assessment, Planning, Implementation, and Evaluation, which incorporates beginning critical thinking skills necessary to continue education in nursing and allied health fields. The course classroom, college skills lab, and clinical experience in local health care facilities meet the requirements of the Omnibus Reconciliation Act of 1987 (OBRA) and qualify individuals to take the State Certification Examination upon completion in accordance with this law. Prerequisites: None, but class has hybrid online component. Semester offered: Fall, Spring.

WELDING

WELD-129 Basic Welding I 4 cr.

This course will cover introductory theory and practical applications of structural plate welding, welding safety, hand held torch cutting operations and equipment set up. The development of student skills using the Shielded Metal Arc Welding process in all positions will be stressed. Corequisite: WELD 131. Semester Offered: Fall and Spring.

WELD-130 Basic Welding II 4 cr.

This course will cover commonly used joint configurations and practical applications of these joints using structural plate. Advancing the development of students' skills using Shielded Metal Arc Welding in all positions and E-6010, E-7018 and E-7024 electrodes will be stressed. Prerequisite: WELD 129. Corequisite: WELD 132. Semester Offered: Fall and Spring.

WELD-131 Basic MIG Welding 4 cr.

A basic course designed to provide the student with the ability to setup, maintain, and operate Metal Inert Gas (MIG) welding equipment safely. Develop the necessary skills to weld structural joints and bend tests in all positions utilizing mild steel plate. Visual and destructive testing methods will be used to determine weld quality. Prerequisite: WELD 130. Corequisite: WELD 129. Semester Offered: Fall and Spring.

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WELD-132 Basic TIG Welding 4 cr.

A basic course designed to provide the student with the ability to set up, maintain, and operate Tungsten Inert Gas (TIG) equipment safely. Develop the necessary skills to weld structural joints and perform bend tests in all positions utilizing mild steel plate. Weld quality will be measured with visual and destructive testing methods. Prerequisite: WELD 131. Corequisite: WELD 130. Semester offered: Fall and Spring.

WELD-133 Plate Welding I 4 cr.

A continuation of Weld 130 with an emphasis on bend tests using light steel plate welded in all positions. The Shielded Metal Arc Welding (SMAW) process using E-6010 and E-7018 electrodes will be utilized. Weld quality will be measured using visual and destructive testing methods. Prerequisite: WELD 130. Semester offered: Fall and Spring.

WELD-134 Plate Welding II 3 cr.

A continuation of Weld 133 with an emphasis on medium and heavy plate utilizing side bend tests in all positions using single vee groove and backing strips. The Shielded Metal Arc Welding (SMAW) process utilizing E-6010 and E-7018 electrodes will be used. Weld quality will be measured using visual and destructive testing methods. Prerequisite: WELD 133. Semester Offered: Fall and Spring.

WELD-135 Introduction to Metal Fabrication I 3 cr.

This class will be an introduction to general layout and fabrication techniques as related to structural welding. Emphasis will be on construction of small projects to tolerances using blueprints. A variety of welding processes will be used in the vertical up and overhead positions only. Prerequisite: WELD 132. Semester Offered: Fall and Spring.

WELD-136 Introduction to Metal Fabrication II 3 cr.

This class will focus on layout along with fabrication techniques as related to structural welding and repair. Emphasis will be on construction and repair of projects to tolerances using small groups and blueprints as applicable to industry settings. A variety of welding processes and all welding positions will be used. Prerequisite: WELD 135. Semester Offered: Fall and Spring.