

skeletal, muscular and nervous systems. Prerequisite: BIOL 121 or high school biology within the last 5 years. CHEM 110 or equivalent and HTP 110 are strongly recommended. Semester offered: Fall, Spring and Summer.

**BIOL-253 Human Anatomy and Physiology II (3+2p) 4 cr.**  
Physical and chemical operation of the organs and systems of the human body, including endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary and reproductive. Basic concepts of metabolism, energy, fluid and electrolyte balance, heredity and human development. Prerequisite: BIOL 252. Semester Offered: Fall and Spring.

**BIOL-255 Introduction to Genetics (3+2p) 4 cr.**  
This course will provide an introduction to modern genetic principles, including mechanisms of inheritance (Mendelian rules and non-Mendelian inheritance), molecular genetics, population genetics, and modern genetic laboratory techniques. Prerequisite: BIOL 121. Semester offered: Fall.

**BIOL-260 Introduction to Cell Biology (3+2p) 4 cr.**  
The fine structure of prokaryotic and eukaryotic cells, their chemical composition and organization, cell metabolism, and bioenergetics. A description of major research tools used by cell biologists. Prerequisites: BIOL 121, CHEM 111. Semester Offered: Spring of odd-numbered years.

**BIOL-281 Pathophysiology I 3 cr.**  
This is the first of a two semester course designed for students pursuing degrees in health careers or biological sciences. The initial material covers the central concepts of cellular and tissue pathophysiology. Thereafter, a systematic survey of genetic diseases, cancer, and the diseases of the immune, nervous, endocrine, and reproductive systems is undertaken. The etiology, pathophysiology, clinical manifestations, and other clinical considerations are discussed. Prerequisites: BIOL 252. Semester offered: Fall.

**BIOL-282 Pathophysiology II 3 cr.**  
The second semester of pathophysiology builds on the information acquired during the first semester. The systematic survey of diseases continues with the hematologic, cardiovascular, respiratory, urinary, digestive, musculoskeletal, and integumentary systems. The etiology, pathophysiology, clinical manifestations and other clinical considerations are discussed. Prerequisite: BIOL 281. Semester offered: Spring.

## 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.

**CARP-195/196 Special Topics 1-4 cr.**  
Specific subjects and credits to be announced in the Schedule of Classes. May be repeated one or more times for additional credit. Semester offered: On Demand.

**CARP-221 Construction Supervision 6 cr.**  
This course is offered to degree seeking and advanced carpentry students. Students will be instructed in supervision, estimating, construction materials, tools, and equipment used in the construction trade. Estimating the ratio of labor to material cost for rough framing, exterior finish, and interior finish carpentry will also be covered. Prerequisites: CARP 111, CARP 115, CARP 121, CARP 127. Semester offered: Fall and Spring.

**CARP-280 Cooperative Education 1-10 cr.**  
The student will be employed at an approved work station which will provide relevant learning experiences that are directly related to the student's career and educational goals. The student will be supervised and evaluated jointly by his/her employer and San Juan College personnel. Semester offered: On Demand.

## BUSINESS ADMINISTRATION

**BADM-114 Intro to Business 3 cr.**  
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. Prerequisites: ENGL 095 or APEN 070+; and RDNG 095 or APRD 058. Semester offered: Fall, Spring and Summer.[NM Common Course Number: BUSA 1113, Business Transfer Module]

**BADM-132 Intro 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. Prerequisites: ENGL 095 or APEN 070+; and RDNG 095 or APRD 058+. 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. Prerequisites: ENGL 095 or APEN 070+; and RDNG 095 or APRD 058+. 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. Also listed as FINA 265.

**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. ENGL 095 or APEN 070+; and RDNG 095 or APRD 058+. Semester Offered: On Demand.

**BADM-176 Introduction to E-Commerce** 3 cr.

This course provides an introduction to the topic of E-Commerce for business or computer science students. Students will learn the basic concepts of business on the Internet, the driving forces of electronic commerce, the demographics of internet customers, and the infrastructure within an organization necessary to support E-Commerce. Prerequisite: RDNG 095 or APRD 058+ and BADM 114. Semester offered: Fall.

**BADM-212 Business Statistics** 3 cr.

Introduces the student to the collection and analysis of numerical data. Covers descriptive statistics, measures of central tendency, probability, sampling distributions, estimation, hypothesis testing, and regression and correlation as they apply to a wide variety of business decisions. Prerequisite: APRD 58+ or RDNG 095; and APMA 104+ or Math 115 or equivalent/higher. Semester offered: Fall and Spring [NM Common Course Number: MATH 2113, Business Transfer Module]

**BADM-230 Business Law** 3 cr.

This course is a general introduction to law with business applications. Principal areas of concentration are contracts, bailments, sales, and commercial paper. Semester offered: Fall, Spring and Summer.[NM Common Course Number: BLAW 2113, Business Transfer Module]

**BADM-231 Business Law II** 3 cr.

This course will provide a study of the various types of business organizations, including sole proprietorships, partnerships and corporations. Navajo Nation forms of business ownership, establishment of businesses on the Navajo Nation, and Navajo Nation business taxation will be presented and studied. The legal concepts of property and bailments, agency, and suretyship, will be introduced. Prerequisites: LEAS 121 and 127 or BADM 230. Semester offered: Spring.[NM Common Course Number: BLAW 2123, Business Transfer Module]

**BADM-233 Principles of Management** 3 cr.

This course introduces the basic theory of organization. The theory is built around the functions of planning, organizing, directing, and controlling. Special emphasis is placed on the interaction of the

organization with its local and international environment. ENGL 099 or APEN 085+; and RDNG 113 or APRD 081+. Semesters Offered Fall and Spring.[NM Common Course Number: MANAGEMENT 2113, Business Transfer Module]

**BADM-238 Leadership and Group Dynamics** 3 cr.

This course focuses on the development of leadership skills. It is designed to provide a basic understanding of leadership and group dynamics to help students develop a personal philosophy of leadership and an awareness of the moral and ethical responsibility of leadership. The course will integrate readings from the humanities, classical literature, and contemporary multi-cultural literature to illustrate various issues in leadership. Students will engage in a variety of experiential learning exercises in order to develop leadership skills. Also listed as HUMA 238. Prerequisites: ENGL 099 or APEN 085+; and RDNG 113 or APRD 081. Semester offered: Fall and Spring.

**BADM-239 Human Resource Management** 3 cr.

This course covers those topics which are relevant to the role of the human resources department in today's firm. Topics include: human resource management, compensation and benefits, labor relations, E.E.O.C., affirmative action, employment and placement, training and development, and other related topics. Prerequisites ENGL 099 or APEN 085+; and RDNG 113 or APRD 081+. Semester offered: Spring.

**BADM-242 Principles of Marketing** 3 cr.

The methods, policies, and organization involved in the exchange of goods and services between producers and consumers. Topics include an overview of the social, economic, and legal environments in which marketing operates, consumer behavior, marketing research, market segmentation and targeting, strategic marketing, product planning, pricing, promotion, distribution, nonprofit marketing, social responsibility in marketing, and techniques of display construction and application. Prerequisites: ENGL 099 or APEN 085+; and RDNG 113 or APRD 081+. Semester offered: Fall Day, Spring Evening.[NM Common Course Number: MKTG 2113, Business Transfer Module]

**BADM-248 Principles of Advertising** 3 cr.

This course is a survey of the history of the advertising media available today, taking into consideration the advantages/disadvantages of each. It discusses the psychological approach to consumer persuasion, the techniques used in media selection and the creative processes of advertising. Prerequisites: ENGL 099 or APEN 085+; and RDNG 113 or APRD 081+. Semester offered: Spring of even years.

**BADM-270 Stress Management** 1 cr.

This course deals with coping with stress at work and at home. Much time is spent on identifying stressful situations and how to manage and cope with such situations. Semester offered: Fall, Spring and Summer.

**BADM-275 International Business** 3 cr.

This course is an examination of international business through a study of the business practice and an examination of the historical and cultural context necessary for success in a global economy. The focus will be on learning the major differences between domestic and international business and a study of how understanding can facilitate intercultural communication and commerce. Prerequisites: ENGL 099 or APEN 085+; and RDNG 113 or APRD 081+. Semester offered: Fall.

**BADM-280 Cooperative Education** 3 cr.  
Supervised cooperative work program. Student is employed in an approved business occupation. Student will be supervised and rated by the employer and instructor. Student Meets in a weekly class and/or report on a variety of films, reading, or seminars. Semester offered: On Demand.

## 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]

**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]

**CHEM-112 General Chemistry II** (3+3p) 4 cr.  
Part two of the general study of atomic systems including: kinetics, catalysis, acid-base systems, thermodynamics, electro-chemistry, nuclear chemistry, reaction optimization, industrial processes, and coordination chemistry. For engineering and pre-professional majors. Prerequisite: MATH 185, or equivalent, CHEM 111 or equivalent. Semester offered: Fall and Spring. [NM Common Course Number CHEM 1224, Area III; Laboratory Science Core]

**CHEM-210 Organic Chemistry Survey** 4 cr.  
A one semester survey for students requiring a brief coverage of important classes of organic compounds and their application to metabolism. Coverage includes nomenclature, preparation, chemical transformations of functional groups and reaction mechanisms. Prerequisites: CHEM 110 or CHEM 111. Semester offered: On Demand.

**CHEM-251 Organic Chemistry I** (3+3p) 4 cr.  
Part one of the study of carbon compound chemistry covering: atomic and molecular orbitals; structure and reaction mechanisms of alkanes, alkenes, and alcohols; laboratory synthesis; gas chromatography; infrared, mass, and nuclear magnetic resonance spectroscopies. For pre-professional majors. Prerequisite: CHEM 112 (recommended) or equivalent; or CHEM 111 with corequisite CHEM 112. Semester offered: Fall.

**CHEM-252 Organic Chemistry II** (3+3p) 4 cr.  
Part two of the study of carbon compound chemistry covering: structure and reaction mechanisms of carboxyl, amine, conjugated, and

polyfunctional systems; ultraviolet spectroscopy; bio-chemistry; and synthetic polymers. Prerequisite: CHEM 251 or equivalent. Semester offered: Spring.

**CHEM-281 Analytical Chemistry** (3+5p) 5 cr.  
Fundamentals of instrumental chemical analysis. Topics include: statistical methods, digital control and data acquisition, gas/liquid chromatography, emission/absorption spectroscopy, capillary electrophoresis, volumetric, gravimetric, and electrochemical analysis. For chemistry and some pre-professional majors. Prerequisite: CHEM 112. Semester offered: On Demand.

## COLLEGE AUTOMOTIVE PROGRAM (Chrysler)

**CAPP-110 Chrysler Shop-Fund and Safety** 1 cr.  
This course will orient the student to shop operations, use of service manuals, pay structures, tools, warranties, and customer relations. Shop safety will be strongly emphasized as well as employee/employer relations. Corequisite: CAPP 120. Semester offered: Fall.

**CAPP-120 Chrysler Electrical and Ignition System** 7 cr.  
A study of the electrical and electronic systems found in the automotive field. Emphasis is on basic circuitry, starting systems, charging systems, ignition systems, diagnosis and servicing the electrical components on current Chrysler vehicles. Instruction will include test equipment related to ignition, electrical, and electronic devices. Course includes specific DaimlerChrysler training. Corequisite: CAPP 110. Semester offered: Fall.

**CAPP-130 Chrysler Fuel and Emission System** 4 cr.  
A study of the fuel and emission control systems used on current Chrysler vehicles. Students will learn to use the exhaust gas analyzer, oscilloscope, and other special test equipment. Course includes specific Chrysler training. Prerequisites: CAPP 110, CAPP 120, CAPP 280. Corequisite: CAPP 140. Semester offered: Spring.

**CAPP-140 Chrysler Drivability Diagnosis and Repair** 4 cr.  
A systematic troubleshooting method for Chrysler fuel, electrical, and electronic systems. Use of tools and equipment needed for proper diagnosis emphasized. Course includes specific Chrysler training. Prerequisite: CAPP 110, CAPP 120. Corequisite: CAPP 130. Semester offered: Spring.

**CAPP-145 ASE Tests** 1 cr.  
Sign up for a minimum of two ASE exams and pass one. Semester offered: Spring.

**CAPP-146 ASE Tests** 1 cr.  
Take and pass remaining ASE exams. Students are required to pass a minimum of four ASE exams in order to receive credit and graduate. Any tests passed in CAPP 145 are counted as part of the requirement. Prerequisite: CAPP 145. Semester offered: Spring.

**CAPP-150 Chrysler Engines and Related Systems** 4 cr.  
This course covers the principles and operation of the internal combustion