

**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 will meet in a weekly class and/or report on a variety of films, reading, or seminars. Offered: On Demand. Faculty Permission Required.

## 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. This course does not substitute for BIOL 121 or 122. Prerequisites: Completion of ENGL-095 and RDNG-095 or appropriate Reading and English. Accuplacer scores. Offered: Fall & Spring.

**BIOL-112 Human Body Structures & Functions** 4 cr.  
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. Offered: Fall & Spring.

**BIOL-121 Introductory Biology I** 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. Prerequisites: Completion of MATH-095, RDNG-113, and ENGL-111 or appropriate Math, Reading, and English. Accuplacer scores. Offered: Fall & Spring.

**BIOL-122 Introductory Biology II** 4 cr.  
An introduction to dynamic processes of living things, and includes local natural history, population genetics, ecology and evolutionary dynamics. Prerequisites: Completion of MATH-095, RDNG-113, and ENGL-111 or appropriate Math, Reading, and English Accuplacer scores. Offered: Fall & Spring.

**BIOL-210 Field Biology** 2 cr. TO 4 cr.  
A field oriented course to be offered during semester break, spring break, or the summer. This course will consist of travel and field-based biological education at distant sites. The course may involve attendance at one or more preparatory classes before field work begins. May require additional travel and accommodation fees. Offered: On Demand.

**BIOL-220 General Botany** 4 cr.  
This course is an introduction to plant biology for majors and non-majors. Topics include plant cell biology, anatomy, physiology, and pollination studies as well as phylogenetic study of Fungi and photosynthetic Bacteria and Protista. Plant ecology and introductory plant systematics will also be introduced. Offered: On Demand.

**BIOL-222 Invertebrate Zoology** 4 cr.  
This course will provide an introduction to all phyla of invertebrates, emphasizing the unifying characteristics within each group. It will examine how form relates to function, and differences in structure and physiology between phyla. Systematics and phylogenetic relationships will be discussed. Prerequisites: BIOL-121 or BIOL-122. Offered: Fall.

**BIOL-223 Vertebrate Zoology** 4 cr.  
This course covers the taxa of animals with backbones: fishes, amphibians, reptiles (including birds) and mammals. It includes relationships, structure, niches and behaviors. Prerequisites: BIOL-122. Offered: Fall.

**BIOL-224 Microbiology** 4 cr.  
This course is an introductory survey of microorganisms. It is not limited to the study of pathogenic bacteria, but will also cover protists and fungi. Within this context principles of isolation, taxonomy, ecology and physiology will be covered. Prerequisites: BIOL-121. Offered: Fall & Spring.

**BIOL-230 Environmental Conservation** 4 cr.  
Topics covered include the study of basic ecological principles, human population growth and its impact on the global environment, including air, water and land pollution; global climate change; renewable and non-renewable energy sources; and biodiversity. Prerequisites: Completion of ENGL-099 and RDNG-113 or appropriate English and Reading Accuplacer scores. Take BIOL-121, BIOL-122, or CHEM-110. Offered: Fall & Spring.

**BIOL-237 Ethnobotany** 4 cr.  
Integrates classical botanical knowledge and identification techniques with historical and current native uses of plants for food, healing, fiber, housing, arts, and sacred activities. Although a broad view will be taken, this interdisciplinary course will emphasize the ethnobotany of the Four Corners region. The class may include field trips. Prerequisites: Completion of ENGL-099 and RDNG-095 or appropriate Accuplacer English and Reading scores. Offered: On Demand.

**BIOL-240 Ecology** 4 cr.  
A study of the dynamics of biological systems. Covers population genetics, population ecology (interactions such as mutualism, competition and predation), and evolutionary theory. Prerequisites: BIOL-122. Offered: Spring.

**BIOL-250 Systematic Botany** 4 cr.  
A study of classification and taxonomy of vascular plants. Topics covered in lecture and laboratory deal with taxonomic principles and philosophy, nomenclature, terminology, use of keys, and history of classification systems. The use of cytogenetics, anatomy, ecology, palynology, chemistry, and the computer in modern systematics is discussed. Students will learn to recognize many of the major plant families and will be taught the methods of botanical fieldwork. A plant collection will be made. Field trips are required, including a three-day excursion to southeastern Utah. Offered: On Demand.

**BIOL-252 Human Anatomy & Physiology I** 4 cr.  
The organization of cells and tissues and their metabolic and

homeostatic processes and regulation. Physical and chemical operation of organs and systems of the human body, including the integumentary, skeletal, muscular and nervous systems. Prerequisites: BIOL-121. CHEM-110 and H1TP-110 is strongly recommended. High school biology within the last 5 years may be accepted. Offered: All.

**BIOL-253 Human Anatomy & Physiology II** 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. Prerequisites: BIOL-252 Offered: All.

**BIOL-255 Introduction to Genetics** 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. Prerequisites: BIOL-121. Offered: Fall.

**BIOL-260 Introduction to Cell Biology** 4 cr.  
A detailed look at the composition and organization of cells, biochemistry and bioenergetics, molecular genetics, and cellular interactions. Major modern research tools will also be explored. Prerequisites: BIOL-121 and CHEM-111. Offered: Spring.

**BIOL-281 Pathophysiology I** 3 cr.  
This is the first of a two semester course designed for students pursuing degrees in allied health 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. 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. Prerequisites: BIOL-281. Offered: Spring.

## BUSINESS LAW

**BLAW-230 Business Law** 3 cr.  
This course is a general introduction to law with business applications. This course will cover the courses of law in the United States; dispute resolution and the court systems in the United States; a study of the law of torts to include negligence, intentional torts, and strict liability; and the essential aspects of contract law, including how contracts are formed, breaches of contract, and remedies available for breach of contract. This course will also cover the law of sales from Article 2 of the Uniform Commercial Code, negotiable instruments from Articles 3 and 4

of the Uniform Commercial Code, and Secured Transactions from Article 9 of the Uniform Commercial Code. [NM Common Course Number: BLAW 2113, Business Transfer Module]. Offered: All.

**BLAW-231 Business Law II** 3 cr.  
This course will provide a study of the various types and formations of business organizations from sole proprietorships, partnerships, corporations, limited liability companies to business organizations found on the Navajo Nation. This course will also cover the law of sales from Article 2 of the Uniform Commercial Code, negotiable instruments from Articles 3 and 4 of the Uniform Commercial Code, and Secured Transactions from Article 9 of the Uniform Commercial Code. The course will also cover poverty law, including bailments and the characteristics of real and personal property. [NM Common Course Number: BLAW 2123, Business Transfer Module]. Prerequisites: LEAS-121 and LEAS-127 or take BLAW-230. Offered: Spring.

**BLAW-263 Occupational Safety Law** 1 cr.  
This course is a general overview of the laws as applied to and concerning the management of occupational safety and health, specifically Worker's Compensation law and broadly the Occupational Health and Safety Act. Prerequisites: Completion of RDNG-113 or appropriate Reading Accuplacer score. Offered: On Demand.

## BUILDING TRADES

**BLDT-110 Basic Blueprint Reading & Design** 2 cr.  
Learn to read and interpret a basic set of house plans. Students also complete a set of plans of their own design, based on the parameters given by the instructor. Emphasis on sound floor plan design and mechanical illustration. Offered: Fall.

**BLDT-111 Foundations & Floor Framing** 3 cr.  
This course will teach the basics of site layout, building foundations, and floor framing. The on-campus laboratory experience will include construction of a house. Offered: Fall.

**BLDT-112 Fundamentals of Wall Framing** 6 cr.  
Learn to layout walls and construct exterior and interior wall sections. Students will gain a strong knowledge of all the components that go into those framed units. Offered: Fall.

**BLDT-113 Insulation and Drywall** 3 cr.  
Learn about the use and installation of insulation products and systems available for use in residential and commercial applications. Students will also learn the proper techniques used in the installation of drywall and the taping and texturing phase. Offered: Fall.

**BLDT-114 Practical Cost Estimating** 3 cr.  
Learn to accurately estimate material costs on basic building projects. This course includes a laboratory project whereby students estimate the materials needed, construct the project and then do a follow up on the accuracy of their estimations. Offered: Fall.

**BLDT-115 Finish Carpentry & Painting** 5 cr.  
Learn to install baseboards, doors and casings, and other miscellaneous moldings. Students will also design and build closet organizers. Additionally the course teaches proper paint techniques in brush, roller, and spray applications. Offered: Fall.