

**BIO****BIO 270 Cell Biology 4.0 UNITS**

This course is a study of the mechanisms occurring within the cell. It is an overview of the structure and function of eukaryotic cells. It reviews in depth the organization of the cell plasma membrane and organelles. The physiology of each cell component is further detailed.

**BIO 260 Molecular Biology 4.0 UNITS**

This Course is designed to give students a comprehensive understanding of the function and structure of nucleic acids and proteins in cells. Students learn various cell signaling pathways including protein transport, protein activation, apoptosis, and cell cycle control in both Eukaryotic and Prokaryotic Cells. Students also learn various Molecular Biology laboratory techniques including gene expression, recombinant DNA technology, Chromosome mapping, Protein and RNA extraction. Attachment

**BIO 100 General Biology 3.0 UNITS**

This is an introductory course in contemporary biology designed to provide a foundation for further studies in biology. Instructional techniques include lectures, demonstrations and laboratory.

**BIO 107 Human Biology 4.0 UNITS**

This course focuses on an understanding of the biological functioning of humans. Additional emphasis is given to genetics, ecology and microbiology. Laboratories include hands-on exercises and lab dissections.

**BIO 111 Anatomy and Physiology I 4.0 UNITS**

This course examines the structure and physiological processes of the human body and provides a background for understanding health problems, diagnosis, and treatment.

**BIO 116 Principles of Biology II 4.0 UNITS**

This course is a continuation of Principles of Biology I. Students will study the structure, function, and behavior of organisms and the unity and diversity of life. They will learn about biological organisms and processes and how to correlate new biological concepts with the ones previously learned. Laboratory exercises will encourage students to practice science through hands-on experiments.

**BIO 201 Practical Nutrition 3.0 UNITS**

This course stresses the application of nutritional principles to daily health

maintenance and conditions that require special diet management. It is designed for Nursing and Health-related or Culinary Arts/ Hospitality Management programs.

**BIO 208 Ecology 4.0 UNITS**

In this course, students will understand the mechanisms governing the structure and function of ecological systems, particularly the relationship between organisms and the environment. Students will investigate key environment issues such as; global climate change, acid deposition, loss of biodiversity and genetically modified food.

**BIO 211 Anatomy and Physiology II 4.0 UNITS**

This course is a continuation of Anatomy and Physiology I. Students will become acquainted with the basic functions, complexities, and inter-relationships of the components of the human body. Topics will include the circulatory, endocrine, digestive, excretory, and reproductive systems. Lectures are supplemented by laboratory sessions which will include dissection and elementary physiologic experiments.

**BIO 230 Histology 4.0 UNITS**

In this course, students will recognize the structure and function of cells, tissues, and organs at the microscopic level. They will identify and recognize all of the major cell and tissue types of the human body. Histology is a laboratory course and lectures often take the form of slide demonstrations. The lab and lecture will be combined into a single learning experience.

**BIO 250 Microbiology 4.0 UNITS**

This course is geared for individuals entering the medical or health sciences professions. It will encompass a survey of microorganisms with emphasis on bacteria and applications of microbiology. The laboratory sessions will stress isolation, cultivation, and various biochemical and identification techniques of selected bacteria and other microorganisms.

**BIO 240 Genetics 4.0 UNITS**

This course examines the principles of inheritance and gene action, from the molecular to the organism level, and populations. Topics include Mendelian principles, molecular genetics, genetic mapping, population genetics, quantitative genetics, gene regulation, mutations, repair mechanisms, and the modern genetic manipulation.

**BIO 120 Human Sexual Biology 3.0 UNITS**

This non-lab science course is designed for liberal arts and other non-science majors. It gives students the opportunity to discover and understand the major

biological aspects of human sexuality. It focuses on the anatomical and physiological study of the reproductive system, conception process, pregnancy period, prenatal development and delivery stages, sexual maturation, gender distinctiveness, and the infectious maladies and specific medical conditions associated with human sexuality. Video simulations in selected topic are incorporated to reinforce scientific exploration and formulation.

**BIO 115 Principles of Biology I 4.0 UNITS**

Biology is a vast subject that explores all of life, from molecules to ecosystems. Students will acquire a framework of key biological concepts into which they can fit the many new things they will learn. They will become familiar with the scientific process, in particular, the posing and testing of hypotheses, and the scientific study of life, evolution, ecology, plants, and animal forms and functions. Laboratory exercises will encourage students to practice science through hands-on experiments.