

## **Biology (BIO)**

### **BIO 100 Biology for Non-Science Majors**

IAI – LI 900L

4 Hours

Prerequisites: None

5 hours weekly (3-2)

A course designed specifically for the non-science major student. The course provides laboratory experience and lecture concepts that help the non-science major student understand the foundations of biology. Emphasis is placed on the application of this knowledge to human concerns and endeavors. Topics to be covered include but are not limited to: process of science, biochemistry, cell science, metabolism, genetics, molecular biology, biotechnology, evolution, structure and function, and ecology.

### **BIO 101 Biological Science for Science Majors I**

IAI – L1 910L, IAI – BIO 910

4 Hours

Prerequisites: None

5 hours weekly (3-2)

This course is designed for science majors. It is a lecture-lab course which includes the following: an introduction to biochemistry, molecular genetics, cell structure, function, and processes. The scientific method is presented in lab.

### **BIO 102 Biological Sciences II**

IAI – L1 910L, IAI – BIO 910

4 Hours

Prerequisites: None

5 hours weekly (3-2)

Organismal biology, ecology, and evolution. An introduction to structure and function of major groups of microorganisms, fungi, animals, and plants. Emphasis on evolutionary relationships and ecological principles. Laboratory required.

### **BIO 105 Human Biology**

IAI – L1 904L

4 Hours

Prerequisites: None

5 hours weekly (3-2)

This course is an introduction to the study of the structure and function of the human body. The course includes laboratory experience and lecture concepts suited for a course into the functioning human body and its impact in the natural community. Topics include: chemical, molecular, and cellular biology, human structure and function, human heredity, evolution, and ecology, and homeostatic imbalances and disease and their impact on society.

### **BIO 205 Human Anatomy and Physiology I**

4 Hours

Prerequisites: None

5 hours weekly (3-2)

A study of the structure, functions, and homeostatic mechanisms of the normal human body. Subjects covered include: fundamentals of the chemical basis of life; cell structure and physiology; tissues; integumentary, skeletal, muscular, central and autonomic nervous systems; and special senses. The laboratory includes dissection of a cat, small mammal, mammalian eye, and appropriate physiological experiments.

## **BIO 206 Human Anatomy and Physiology II**

4 Hours

Prerequisites: None

5 hours weekly (3-2)

A study of the structure, function, and homeostatic mechanisms of the endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems; defense mechanisms of the body; pregnancy; embryonic development; and inheritance. The laboratory includes dissection of cat and large mammal heart and appropriate physiological experiments.

## **BIO 225 Genetics**

IAI – L1 906

3 Hours

Prerequisites: None

3 hours weekly (3-0)

This course examines gene structure and function. Cytogenetics, transmission genetics, molecular genetics and population genetics are explored during the semester. Special attention is given to applications of gene technology and the impact of genetic knowledge and technology on humanity.

## **BIO 226 General Microbiology**

4 Hours

Prerequisites: None

6 hours weekly (2-4)

An introduction to the study of microorganisms, including their morphology, physiology, cultivation, classification, pathogenicity, economic importance, control, and immunity. Laboratory experiments guide students in development of laboratory procedures, sterile techniques, and data interpretation.