Course Description

Integrates anatomy and physiology of cells, tissues, organs, and systems of the human body. This course is the second in a two part series. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week.

General Course Purpose

This course is an introductory college transfer level offering designed to meet the anatomy and physiology needs of the student pursuing programs in a medical or paramedical career, or a degree in physical education.

Course Prerequisites/Corequisites

Prerequisite: BIO 141, or division approval.

Course Objectives

Upon completion of this course, the student should be able to:

- describe the anatomy and physiology of the respiratory system of man and related clinical disorders
- discuss the composition of human blood and the functions of each of the individual constituents
- describe the anatomy and physiology of the cardiovascular system of man and related clinical disorders
- describe the anatomy and physiology of the male and female reproductive systems
- discuss the phases of the menstrual cycle and the hormones associated with each phase
- explain the sequence of events in protein synthesis
- solve genetic problems involving monohybrid and di-hybrid crosses, blood types, sex-linked traits and sex influenced traits
- describe the anatomy and physiology of the digestive system of man
- list the enzymes and hormones involved in digestion and state their functions
- describe the anatomy and physiology of the urinary system of man and related clinical disorders
- explain fluid and electrolyte balance in the human body and related clinical disorders
- explain the anatomy and physiology of the immune system
- discuss the organs of the endocrine system, their secretions, the functions of these secretions, the control of these secretions, and their target organs. Explain common related clinical disorders

Major Topics to be Included

- Anatomy and physiology of the respiratory system
- Anatomy and physiology of the circulatory system
- Hematology
- Anatomy and physiology of the reproductive system
- Protein synthesis
- Meiosis and Genetics
- Digestion
- Anatomy and physiology of the urinary system
- Fluid and electrolyte balance
- Acid – Base
- Immunity
- Anatomy and physiology of the lymphatic system
- Anatomy and physiology of the endocrine system