COURSE TITLE: Human Anatomy and Physiology (with Lab)

COURSE NUMBER: SCI 335

I. COURSE OBJECTIVES:

Upon successful completion of this course the student will be able to:

IDEA- 2 1. Learn fundamental principles, generalizations, or theories
IDEA- 1 2. Gain factual knowledge (terminology, classifications, methods, trends.)
IDEA- 3 3. Learn to apply course material (to improve thinking, problem solving, and decisions)

1. General:
   A. To develop a basic understanding of the structure and function of the human body.
   B. To relate chemistry, cells, tissues, and organs in the organism in order to understand the structure and function of the human body.
   C. To provide a background for further study in a variety of professional fields.
   D. To develop an appreciation for the structure and function of the human body.

2. The students will be expected to demonstrate a general understanding of the following:
   A. Laboratory safety and protocols.
   B. Anatomical position, terminology, planes, cavities of the human body.
   C. Chemistry of the human body.
   D. Cell structure, cell function, cell reproduction.
   E. Histology, tissues, and membranes.
   F. The skeletal system, bone structure; and markings; axial and appendicular skeleton.
   G. Skeletal muscles, muscle structure and nomenclature.
   H. Basic principles of muscle function, mechanisms of muscle contraction.
   I. The nervous system, reflexes, reflex arc, neural transmission and signaling.
   J. Structures and functions of the brain, of the spinal cord, spinal nerves, cranial nerves, autonomic nervous system, receptors, sense organs.
   K. The endocrine system.
   L. The cardiovascular system, heart structure and function, blood vessels, blood
pressure and circulation, hepatic portal transport, fetal circulation, lymphatic system.

M. Respiratory anatomy and respiratory physiology.
N. Digestive anatomy and physiology.
O. Urinary anatomy and physiology, fluid and electrolyte balance.
P. The reproductive systems.
Q. Human development and genetics.