COMMON COURSE OUTLINE: Course discipline/number/title: BIOL 1107: Fundamentals of Anatomy and Physiology

A. CATALOG DESCRIPTION
   1. Credits: 4
   2. Hours/Week: 3 hours of lecture and 2 hours of lab per week
   3. Prerequisites (Course discipline/number): None
   4. Co-requisites (Course discipline/number): None
   5. MnTC Goals (if any): Goal 2/Critical Thinking, Goal 3/Natural Sciences

   This course is a one-semester, introductory level Human Anatomy and Physiology course designed to cover basic anatomy and physiology of the major body systems with a secondary focus on medical terminology. The laboratory curriculum does not include dissection of animal specimens.

B. DATE LAST REVISED (Month, year): March, 2010

C. OUTLINE OF MAJOR CONTENT AREAS:
   1. Biological macromolecules
   2. Structure and function of cells
   3. Tissue types
   4. Organization of the body
   5. Study of the body systems:
      a) Integumentary
      b) Musculoskeletal
      c) Nervous
      d) Endocrine
      e) Cardiovascular
      f) Digestive
      g) Respiratory
      h) Immune
      i) Urinary
      j) Reproductive

D. LEARNING OUTCOMES (GENERAL): The student will be able to:
   1. Demonstrate a basic knowledge of the anatomical organization of the human body.
   2. Identify the major tissues of the body.
   3. Identify the major organs of each body system.
   4. Demonstrate a basic understanding of the physiological processes of each body system.
   5. Apply basic anatomy and physiology concepts to the understanding of human pathology and disease.
   6. Demonstrate knowledge of the terminology specific to anatomy and physiology.

E. LEARNING OUTCOMES (MNTC):
   Goal 2/Critical Thinking: The student will be able to:
   1. Gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.
   2. Imagine and seek out a variety of possible goals, assumptions, interpretations or perspectives which can give alternative meanings or solutions to given situations or problems.
   3. Analyze the logical connections among the facts, goals, and implicit assumptions relevant to a problem or claim; generate and evaluate implications that follow from them.
   4. Recognize and articulate the value assumptions which underlie and affect decision, interpretations, analyses and evaluations made by ourselves and others.

Goal 3: Natural Science: The student will be able to:
1. Demonstrate understanding of scientific theories.
2. Formulate and test hypotheses by performing laboratory experiments requiring the collection of data, its statistical and graphical analysis and an appreciation for its sources of error and uncertainty.
3. Communicate their experimental findings, analysis and interpretations both orally and in writing.
4. Evaluate society issues from a natural science perspective, ask questions about the evidence presented and make informed judgments about science-related topics and policies.

F. METHODS FOR EVALUATION OF STUDENT LEARNING:
Evaluation methods may include any of the following:
1. Laboratory quizzes and/or reports
2. Lecture exams
3. Assignments
4. Individual or group projects

G. SPECIAL INFORMATION (if any):
General information about safety rules and procedures and about safety equipment in the laboratory is provided by the instructor during the first laboratory session. In subsequent laboratory sessions, the hazardous characteristics of any materials to be used and the necessary precautions for the handling of these materials will be discussed at the beginning of the session by the instructor. The instructor will direct all students to wear necessary protective equipment when working with hazardous chemicals. Copies of the Material Safety Data Sheets (MSDS) for all chemicals used are available in the laboratory.

This course aligns with the following RCTC Core Outcomes:
1. Critical Thinking