COURSE INFORMATION FORM

DISCIPLINE: Biology
COURSE TITLE: Human Physiology

CR.HR 5  LECT HR. 4  LAB HR. 3  CLIN/INTERN HR.  CLOCK HR. 

CATALOG DESCRIPTION
Functions of the human body as revealed by cells, tissues, organs and systems in terms of underlying physicochemical processes.

PREREQUISITES
BIOL 110 and CHEM 105.

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)
Upon completion of this course, the student will be able to:

1. Describe homeostasis and give examples of compensatory mechanisms.
2. Demonstrate knowledge of the physiological aspects, including homeostatic regulatory mechanisms, of each organ system of the human body.
3. Use basic physiological principles to explain or interpret selected pathophysiological conditions.
4. Accurately report data obtained from laboratory experiments and interpret the results.
5. Use appropriate physiologic terminology.
6. Read and analyze current physiology literature.

GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

Outcomes                  ESO
PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

1.

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes may be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Written examinations. (1, 2, 3, 5, 6)
2. Evaluation of participation in assigned laboratory exercises. (4)
3. Written lab reports. (2, 4, 5)
4. Written or oral report based on current literature. (3, 5, 6)
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Introduction  
   A. Review of chemistry  
   B. Homeostasis  

II. Basic Cellular Functions  
   A. Cells and membranes  
   B. Mitosis and meiosis  
   C. Genetics, development and inheritance  

III. Neuromuscular physiology  
   A. Transmembrane potential  
   B. Neuron physiology  
   C. Skeletal muscle physiology  
   D. Reflex behavior  
   E. Autonomic nervous system  

IV. Endocrine system physiology  
   A. Endocrine glands  
   B. Functions of hormones  

V. Cardiovascular physiology  
   A. Heart physiology  
   B. Vascular components and cardiovascular physiology  
   C. Physiology of the blood  

VI. Respiratory physiology  
   A. Gas exchange  
   B. Regulation of breathing  

VII. Kidney physiology  
   A. Water and electrolyte balance  
   B. PH balance  

VIII. Digestive system physiology and metabolism  
   A. Physiology of digestion*  
   B. Metabolism of energy-yielding nutrients  

IX. Reproductive physiology  
   A. Gametogenesis  
   B. Hormonal regulation of reproduction  

X. Defense mechanisms*