BIOL 219 - Human Physiology Course Outline

Approval Date: 03/12/2020
Effective Date: 08/16/2021

SECTION A

Unique ID Number	CCC000263078
Discipline(s)	Biological Sciences
Division	Science and Engineering
Subject Area	Biology
Subject Code	BIOL
Course Number	219
Course Title	Human Physiology
TOP Code/SAM Code	0410.00 - Anatomy and Physiology / E - Non-Occupational
Rationale for adding this course to the curriculum	Changes fom previous version: 1. MATH and ENGL prerequisites have been removed. MATH 94 is no longer applicable and MATH prerequisite is met through completion of the CHEM 110 prerequisite. ENGL 90 prerequisite is no longer applicable. 2. Update textbook editions.
Units	5
Cross List	*N/A*
Typical Course Weeks	18

Total Instructional Hours

	Contact Hours
Lecture	54.00
Lab	108.00
Activity	0.00
Work Experience	0.00
Outside of Class Hours	108.00

Total Contact Hours	162
Total Student Hours	270
Open Entry/Open Exit	No
Maximum Enrollment	
Grading Option	Letter Grade or P/NP
Distance Education Mode of Instruction	

SECTION B

General Education Information:

SECTION C

Course Description

Repeatability May be repeated 0 times

Catalog Description An introduction to the function of the human body, emphasizing mechanisms of homeostasis and integration at the biochemical, cellular, tissue, organ, and organ system levels. Laboratory exercises include measurement and analysis of physiological data and study of structure-function relationships in body tissues and organs. Primarily intended for students pursuing an Associates Degree in Nursing, A.S. degree in Respiratory Care, or B.A./B.S. degree in a Health Sciences field.

Schedule Description

SECTION D

Condition on Enrollment

1a. Prerequisite(s)

BIOL 105 with a minimum grade of C or better or
BIOL 120 with a minimum grade of C or better
CHEM 110 with a minimum grade of C or better

1b. Corequisite(s): *None*

1c. Recommended

BIOL 218

1d. Limitation on Enrollment: *None*

SECTION E

Course Outline Information

1. Student Learning Outcomes:

A. Communicate understanding of physiological processes including mechanisms of homeostasis.
B. Critically evaluate physiological function in normal and disease states.
C. Perform basic physiological measurements and analyze physiological data quantitatively.

2. Course Objectives: Upon completion of this course, the student will be able to:

A. Explain the principle of homeostasis and provide examples of homeostatic control mechanisms in the body.
B. Recognize the chemical structures of the major classes of biomolecules and describe their major roles in living cells.
C. Relate biological structure to function at the cellular, tissue, organ, and organ system levels of organization.
D. Explain mechanisms of cellular communication in the nervous, sensory, and endocrine systems.
E. Describe the function and regulation of the major organ systems of the body and provide examples of integration among these systems.
F. Compare physiological function in normal and disease states such as diabetes, cardiovascular disease, and obstructive pulmonary disease.
G. Perform physiological measurements and apply quantitative methods to analyze physiological data.
H.

Lab Activities --
Final Exam --
Mid Term --

Additional assessment information:

Exams include 3-4 midterm exams, 2 laboratory exams, and a cumulative final exam.
Biweekly quizzes cover lecture and lab topics.
Class participation is based on engagement in lab exercises, group learning activities and class discussions.
Homework assignments include problem-spolving exercises, laboratory data analysis, and written answers to questions from the lab exercises.
Lab activities include measurement and analysis of physiological data, study of functional anatomy and histology, and case studies.

Letter Grade or P/NP

6. Assignments: State the general types of assignments for this course under the following categories and provide at least two specific examples for each section.

A. Reading Assignments
Textbook and laboratory manual reading assignments.

For example:

Read Chapter 2 in the textbook in preparation for l0.0437 Tcḫon.

Publisher: McGraw-Hill
Date of Publication: 2019
Edition: 15th

Manual #1:
Author: Fox, S.I.
Title: A Laboratory Guide to Human Physiology, 13th ed.
Publisher: McGraw Hill
Date of Publication: 01-02-2013

B. Other required materials/supplies.