

COURSE SYLLABUS

Course Title:	Anatomy & Physiology I	Date submitted:	November 2017 (AAC: 17-61)	
Department:	Mathematics and Science			
Curriculum:	Biology			
Course Descriptors: Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.	Course Code: (eg. ACC 101) <table border="1"><tr><td>BIO*211</td></tr></table>	BIO*211	Prerequisites:	
	BIO*211			
	Course Type: <table border="1"><tr><td>X</td></tr></table>	X	C- or better in General Biology I (BIO*121) AND C- or better in Concepts of Chemistry (CHE*111) or General Chemistry I (CHE*121)	
	X			
	A: Clinical B: Lab D: Distance Learning I: Individual/Independent L: Lecture N: M: Seminar Internship P: Practicum U: Studio X: Combined Lecture/Lab Y: Combined Lecture/Clinical/Lab Z: Combined Lecture/Studio			
	Elective Type: <table border="1"><tr><td>G/LA/S</td></tr></table>	G/LA/S		
	G/LA/S			
	E: English FA: Fine Arts HI: History HU: Humanities LA: Liberal Arts FL: Foreign Language M: Math S: Science SS: Social Science G: General			
	Credit Hours: <table border="1"><tr><td>4</td></tr></table>	4	Corequisites:	
	4			
Developmental: (yes/no) <table border="1"><tr><td>No</td></tr></table>	No	None		
No				
Lecture: <table border="1"><tr><td>3</td></tr></table>	3			
3				
Clinical: <table border="1"><tr><td>0</td></tr></table>	0			
0				
Lab: <table border="1"><tr><td>3</td></tr></table>	3			
3				
Studio: <table border="1"><tr><td>0</td></tr></table>	0			
0				
Other: <table border="1"><tr><td>0</td></tr></table>	0			
0				
Contact Hours:	TOTAL: <table border="1"><tr><td>6</td></tr></table>	6	Other Requirements:	
6				
Class Maximum: <table border="1"><tr><td>20</td></tr></table>	20	Dissection Kit Nitrile Gloves Safety Glasses		
20				
Semesters Offered: <table border="1"><tr><td>F/Sp/Su</td></tr></table>	F/Sp/Su			
F/Sp/Su				
Catalog Course Description:	The structure and function of the human body will be discussed in depth for each of the organ systems. Physiology will be presented from a biochemical and organ point of view.			
Topical Outline: List course content in outline format.	1. Introduction <ul style="list-style-type: none"> a. Positive Feedback Systems b. Negative Feedback Systems c. Frames of Reference d. Directional Terms 2. Chemistry <ul style="list-style-type: none"> a. Atomic Structure b. Molecules and Compounds c. Chemical Bonds and Reactions d. Inorganic Compounds 			

- e. Organic Compounds
- 3. The Cell
 - a. Cell Membrane: Physiology of Transport
 - b. Cytoplasm
 - c. Organelles
 - d. The Cell Cycle
 - e. Protein Synthesis
- 4. Integumentary System
 - a. Epidermis
 - b. Dermis
 - c. Accessory Structures
 - d. Disorders
- 5. Skeletal Tissue
 - a. Functions
 - b. Histology
 - c. Ossification
 - d. Homeostasis and Disorders
- 6. Muscle Tissue
 - a. Functions and Histology
 - b. Locations of Major Muscles
 - c. Physiology of Skeletal Muscle
 - d. Physiology of Smooth Muscle
 - e. Physiology of Cardiac Muscle
 - f. Homeostasis and Disorders
- 7. Nervous Tissue
 - a. Functions and Histology
 - b. Physiology of the Nerve Impulse
 - c. Disorders
- 8. Spinal Cord and Spinal Nerves
 - a. General Features
 - b. Nerve Tracts
 - c. Functions and Reflexes
 - d. Disorders
- 9. Brain and Cranial Nerves
 - a. Anatomy
 - b. Cerebrospinal Fluid and Blood Supply
 - c. Functions
 - d. Disorders
- 10. Sensory and Motor System
 - a. Sensory Pathways
 - b. Motor Pathways
 - c. Pyramidal and Extrapyrmidal Pathways
- 11. Autonomic Nervous System
 - a. Structure
 - b. Sympathetic and Parasympathetic Divisions
 - c. Physiology

	<p>12. Special Senses</p> <ul style="list-style-type: none"> a. Visual Sensations b. Auditory Sensations and Equilibrium c. Other Senses: Taste and Smell d. Disorders <p>Laboratory :</p> <ul style="list-style-type: none"> 1. Anatomical Terminology, Body Cavities and Membranes 2. The Microscope and Histology of Epithelial Tissues 3. Histology of Connective, Muscular, and Nervous Tissues 4. The Integumentary System 5. Axial Skeleton 6. Appendicular Skeleton 7. Axial Muscles 8. Appendicular Muscles 9. Spinal Cord and Spinal Nerves 10. The Brain and Autonomic Nervous System 11. General and Special Senses
<p>Outcomes: Describe measurable skills or knowledge that students should be able to demonstrate as evidence that they have mastered the course content.</p>	<p>COURSE: Upon successful completion of this course, the student will be able to do the following:</p> <ul style="list-style-type: none"> 1. explain and give an example of homeostasis 2. distinguish between organic and inorganic compounds and explain how each is important to human physiology 3. identify the parts of the cell and explain their functions 4. identify, locate and describe the four major tissue types of the body 5. explain how the bones are made and resorbed 6. locate the bones in the axial and appendicular skeleton 7. contrast the major categories of joints and explain the relationship between structure and function 8. list and explain the events of a single muscle contraction and describe the mechanisms by which muscles obtain the energy for contraction 9. identify the principal muscles of the body 10. differentiate between the Central and Peripheral Nervous Systems and describe their structure and function 11. describe the effects of the Sympathetic and Parasympathetic Divisions of the Autonomic Nervous System 12. distinguish between special and general senses, and describe their anatomy and physiology 13. <p>PROGRAM: <i>(Numbering reflects Program Outcomes as they appear in the college catalog)</i> N/A</p> <p>COMPETENCY FULFILLED: Scientific Knowledge & Understanding (SCKX) OR Scientific Reasoning (SCRX)</p>

Evaluation: List how the above outcomes will be assessed.	Assessment will be based on the following criteria: examinations quizzes assignments during class and laboratory periods
Instructional Resources: List library (e.g. books, journals, on-line resources), technological (e.g. Smartboard, software), and other resources (e.g. equipment, supplies, facilities) required and desired to teach this course.	Required: Histology Slides Anatomical Models Preserved Specimens Software Desired: None
Textbook(s)	<i>Visual Anatomy & Physiology</i> ; Frederic H Martini; latest edition <i>Laboratory Manual for Anatomy & Physiology (Cat Version)</i> ; Michael G Wood; latest edition