BIOL A221: ANATOMY-PHYSIOLOGY

Item	Value
Curriculum Committee Approval Date	11/17/2021
Top Code	041000 - Anatomy and Physiology
Units	4 Total Units
Hours	108 Total Hours (Lecture Hours 54; Lab Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)
Associate Arts Local General Education (GE)	• OC Physical/Biological Sci - AA (OB)
Associate Science Local General Education (GE)	• OCC Physical/Biological Sci-AS (OSB)
California General Education Transfer Curriculum (Cal-GETC)	• Cal-GETC 5B Biological Sciences (5B) • Cal-GETC 5C Laboratory Activity (5C)
Intersegmental General Education Transfer Curriculum (IGETC)	• IGETC 5B Biological Sciences (5B) • IGETC 5C Laboratory Activity (5C)
California State University General Education Breadth (CSU GE-Breadth)	• CSU B2 Life Science (B2) • CSU B3 Laboratory Activity (B3)

Course Description

Anatomy and physiology as a combined discipline. Designed for Career and Certificate Programs. Suitable as a general education elective for the non-science major. Transfer Credit: CSU; UC: Credit Limitation: Credit for either BIOL A221 or BIOL A220 and BIOL A225.

Course Level Student Learning Outcome(s)

1. Identify gross and microscopic anatomical structures of the human body on illustrations, models, dissected organs, and on human skeletal and cadaver specimens.
2. Show the interrelated nature of organs and organ systems by describing or illustrating the relationship between anatomical structures and physiological processes.

Course Objectives

- 1. Identify anatomical structures of the human body on human skeletal and cadaver specimens.
- 2. Identify anatomical structures on models and illustrations.
- 3. Identify primary tissue types and specific tissues on microscope slides and micrographs.
- 4. Identify anatomical structures on dissected organs.
- 5. Evaluate skeletal muscle contraction.
- 6. Evaluate the cardiac cycle, blood pressure, and blood typing.
- 7. Evaluate respiratory volumes.
- 8. Evaluate urinalysis.
- 9. Describe the relationship of the structure of the body to its function.
- 10. Discuss the concept “normal limits” as applied to both anatomy and to physiology.
- 11. Discuss various disease processes and how they affect both anatomy and physiology.

Lecture Content

Introduction to Principles of Life The Cell: Structure and Function Histology The Integumentary System The Skeletal System: Structure and Function The Muscular System: Structure and Function The Nervous System: Structure and Function Special Senses The Endocrine System: Structure and Function The Circulatory System: Structure and Function The Digestive System: Structure and Function The Respiratory System: Structure and Function The Urinary System: Structure and Function The Male and Female Reproductive Systems

Lab Content

Cytology Histology Integumentary System Skeletal System Muscular System Anatomy Physiology Endocrine System Central Peripheral Nervous System Special Senses Cardiovascular System Anatomy Physiology Lymphatic System Respiratory System Anatomy Physiology Digestive System Urinary System Urinalysis Reproductive System

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)
- Lab (04)
- DE Live Online Lab (04S)
- DE Online Lab (04X)

Instructional Techniques

Lecture, discussion, observation of lab specimens and dissections, demonstration of laboratory techniques, and multimedia presentations as appropriate.

Reading Assignments

Reading assignments are given from the textbook and from other sources, are integral to successful understanding of course material. Review of course content in preparation for assessments is expected. (4 hours/week).

Writing Assignments

Writing assignments vary on an individual basis.

Out-of-class Assignments

Supplementary assignments may be posted to reiterate concepts delivered in lecture and/or lab. Some are required, some are optional. They might include but are not lilmited to worksheets (labeling, drawing,

short answer, etc), links to videos or interactive websites. (2.75 hours/ week).

Demonstration of Critical Thinking

Objective examinations, practical examinations, and subjective evaluations of lab activities.

Required Writing, Problem Solving, Skills Demonstration

Writing assignments vary on an individual basis. Problem solving may include ability to determine ABO and Rh blood types.

Eligible Disciplines

Biological sciences: Masters degree in any biological science OR bachelors degree in any biological science AND masters degree in biochemistry, biophysics, or marine science OR the equivalent. Masters degree required.

Textbooks Resources

1. Required Marieb, Elaine and Keller, Suzanne. Essentials of Anatomy Physiology, 13th ed. Upper Saddle River, New Jersey: Pearson, 2022