



Human Physiology | Lecture and Lab

Academic Year 2020-2021

Course Information

Course Numbers

BIO261/BIO261L

Total Credits

4 (3 Lecture + 1 Lab)

Time Requirement

75 hrs (Lecture 45hrs + Lab 30hrs)

Course Details

Recommended Prerequisites

Human Anatomy (Bio 251) with a minimum grade of C or better are highly recommended.

Course Description

This course is designed primarily for health sciences programs including medicine, physician assistant, chiropractic, dental hygiene, pharmacy, nursing, physical therapy, sports and leisure studies, and other medical related fields. It is an in-depth study of human function. Special attention is given to the abnormal as well as the normal functional state of the organ systems including integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems. The laboratory experience includes selected exercises that emphasize the interrelationships between structure and function.

Lecture and Laboratory Communication

A website will be set up on Canvas by your instructor.

Log in with your Username and password: <https://scuhs.instructure.com>

Faculty Information

Refer to the Canvas course webpage for this information.

Class Meeting Times

Refer to Canvas course webpage for this information.

Instructional Materials

Required Text(s)

Human Physiology by Stuart Ira Fox (ISBN-13: 978-1259864629) 15th edition

Lab

Laboratory Manual for Physiology (Southern California University of Health Sciences)

Lab Materials Provided: Safety Goggles, Latex gloves and disposable lab coats



Course Purpose

Student Learning Outcomes

At the conclusion of this course, a successful student should be able to:

1. Explain chemical components of the body including enzymes and energy.
2. Describe interactions between cells and the extracellular environment.
3. Explain mechanism of contraction and neural control.
4. Indicate the function of joints, muscle tissue and the muscular system.
5. Compare the normal function of the organ systems.
6. Differentiate the basic types of human tissues.

Course Schedule

(subject to slight modifications by the instructor)

Day	Lecture	Assessment
1	The Study of Body Function Chemical Composition of the body Cell Structure and Genetic Control	Class Participation
2	Enzymes and Energy Cell Respiration and Metabolism Interactions Between Cells and the Extracellular Environment	Class participation
3	The Nervous System: Neurons and Synapses The Central Nervous System/Autonomic Nervous System	Quiz 1
4	Sensory Physiology Endocrine Glands: Secretion and Action of Hormones Blood, Heart, and Circulation	Class participation
5	Cardiac Output, Blood Flow, and Blood Pressure Muscle: Mechanisms of Contraction and Neural Control	Midterm
6	The Immune System Respiratory Physiology	Class participation
7	Physiology of the Kidneys The Digestive System	Quiz 2
8	Regulation of Metabolism Reproduction	Class participation
9	Review	Class Participation
10	Final Test	Final Test

Tentative Grading Procedures

Lecture

Assessment	Points
Class participation/activities	10
Quiz 1	20
Midterm Test	25
Quiz 2	20
Final Test	25
Total	100

Lab Schedule (subject to slight modifications by the instructor)

Day	Laboratory	Assessment
1	The Microscope and Tissue Histology Human Cheek Cells	Lab Assignments
2	Diffusion Across the Membrane and Osmosis Enzymes	Lab Assignments Lab Assignments
3	Human Reflexes and Cranial Nerves	Quiz 1
4	WBCs Identification Blood Typing	Midterm Test Lab Assignments
5	Blood Pressure, Pulse Rate, and ECG	Lab Assignments
6	Electromyography (EMG)	Quiz 2 Lab Assignments
7	Mechanism of Breathing Spirometry	Lab Assignments
8	Urinalysis	Lab Assignments
9	Digestion	Lab Assignments
10	Final Test	Final Test

Tentative Grading Procedures

Lab

Assessment	Weight (%)
Lab Quizzes	30
Lab Tests	30
Lab Final (cumulative)	30
Lab Assignments	10
Total	100%

Grading scale:

Please note letter grades will be assigned only at the end of the trimester.

A = 90% to 100%

B = 80% - less than 90%

C = 70% - less than 80%

D = 60% - less than 70%

F = less than 60%

W = Withdrawal

Grading procedures:

The format of assessments may include multiple choice, short answer, labelling, fill-in-the-blank, or matching examinations. Participation points are required and will be assigned by the instructor as the course progresses using any of the following: in class mini quizzes, activities, online quizzes. For online quizzes students must have a phone, tablet, laptop or other internet connected device to participate. Students must be in class during the participation activities to receive participation marks.



Academic Integrity

Visit SCU's [Academic Integrity](#) page to review policies for professionalism and academic integrity.

Teaching Methods and Activities

The course requires a significant time commitment from students. This commitment is both in terms of reading lecture outlines prior to reading the chapters, as well as reviewing the material.

Required Attire

Close-toed shoes, professional attire and lab coats are mandatory during all lab hours. No shorts, heels, or flip-flops will be allowed in the laboratory; hair longer than shoulder-length must be pulled back and held with a clip or hair tie. Gloves, goggles and additional safety equipment will be required per experiment.

Classroom Expectations

Please be professional, prompt, prepared, and polite always.

The professor will adhere to all policies as found in the Student Handbook. Cellular phones must be kept on silent during class and lab times. Students may not use a phone as a calculator. As a safety precaution, no food or drinks are allowed inside the lab, but there will be a designated break for eating and drinking outside of the lab.

Best Practices for Studying

- Read before and read after each class. Skim the chapter before it is covered in lecture in order to become comfortable with some of the terms associated with each topic. Review each chapter after it is covered in class to enhance your understanding of what was covered in class.
- Participate during class by taking notes during class and looking over them afterwards. Don't skip class, arrive late, or leave early. Ask questions for clarification when you don't understand the material.
- Stay on top of the homework and assignments. Do the assigned problems as close to the time as when the topic is covered in the class to increase the depth of your understanding of specific concepts and will help you learn the material more efficiently and effectively.
- Do not wait until the night before the homework is due to start the assignment. You will get more out of it if you take the time to really learn the concepts and review the material without being rushed.
- Find a group of students to study with. Seek out students dedicated to doing well in the course. This makes studying more fun and helps you learn the material better by teaching what you know and learning from your peers what you don't know. Explaining these concepts to others will help you learn the material even better.
- Stay focused by finding an environment where you can study with few distractions.



University Policies

Accommodations

As a learning-centered community, Southern California University of Health Sciences recognizes that all students should be afforded the opportunity to achieve their academic and individual potential. The University recognizes and supports the standards set forth in Section 504 of the Rehabilitation Act and

the American with Disabilities Act (ADA). In accordance with its mission and federal and applicable state laws, the University is committed to making reasonable accommodations for qualified applicants for admission and enrolled students with disabilities. A student who needs accommodation(s) due to a disability should contact the Academic Support Office located in the Learning Resource Center.

Faculty and Dr./Patient Relationships

SCU faculty are highly skilled. However, per University Policy, health care is offered to students through the University Health System only. Neither preclinical nor clinical faculty can provide advice, assessment, treatment, or other elements that would be considered part of a Doctor-Patient relationship outside of a clinical setting established for that purpose.

Learning Activities

Students are expected to spend at least two hours for each lecture hour of course time per week in activities and assessments outside the classroom. Examples of activities include but are not limited to writing papers; reading articles or text; small group work; presentations; completing assignments; preparation for assessments; online activities and other activities that do not include direct instructor interaction and involvement.

All university policies apply to this course and all others. For full policy information please consult the university SCU Policy Manual. For a quick reference guide to the following policies: make-up examination, F-challenge examination, grade posting, results of failing grades, student support information, syllabus amendments, special needs, student conduct, and attendance, please consult the academic policies document housed on the [Online Student Services](#) .