



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 (SmartBook) by Fox, 15e LearnSmart, LearnSmart Prep Also includes: Fox, Human Physiology, 15e (ebook), Practice Atlas for Anatomy & Physiology. ISBN-13: 978-1259864629

### 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)

Week	Lecture	Assessment
1	Module 1: Biological Systems, Tissues, and Molecules Module 2: Cell Structure and Function: Role of DNA	Reading Assignments Quizzes Module Exams
2	Module 3: Enzymes and Enzymatic-Controlled Metabolic Reactions Module 4: Introduction to the Nervous and Muscular Systems Module 5: The Brain and the Central Nervous System	Reading Assignments Quizzes Module Exams
3	Module 6: The Autonomic Nervous System, Sensory Physiology, and Muscles Module 7: Endocrine System Module 8: Circulatory System	Reading Assignments Quizzes Module Exams
4	Module 9: The Immune and Digestive Systems Module 10: Respiratory System	Reading Assignments Quizzes Module Exams
5	Module 11: Kidney Physiology Module 12: Reproductive Physiology	Reading Assignments Quizzes Module Exams

## Tentative Grading Procedures

Lecture

Assessment	Points per assignment	Total number of assignments
Reading Assignment	25	12 (1 per module)
Quiz	10	12 (1 per module)
Discussions	50	4
Module Exam	50	12 (1 per module)



## Lab Schedule (subject to slight modifications by the instructor)

Laboratory	Assessment
Cell structure and tissues	Lab Assignments
The Microscope and Tissue Histology	Lab Assignments
Human Cheek Cells	Lab Assignments
Diffusion Across the Membrane and Osmosis	Quiz 1
Enzymes	
Human Reflexes and Cranial Nerves	Midterm Test
	Lab Assignments
WBCs Identification	Lab Assignments
Blood Typing	
Blood Pressure, Pulse Rate, and ECG	Quiz 2
	Lab Assignments
Electromyography (EMG)	Lab Assignments
Mechanism of Breathing	Lab Assignments
Spirometry	
Urinalysis	Lab Assignments
Digestion	Lab Assignments
Final Test	Final Test

## Tentative Grading Procedures

Lab	Assessment	Weight (%)
	Lab Quizzes	30
	Lab Tests	30
	Lab Final (cumulative)	30
	Lab Assignments	10
	<b>Total</b>	<b>100%</b>



## **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

Each week's material is divided into two to three modules, for a total of 12 modules. The course will follow a linear format, meaning you will complete all the modules in sequence. The material in each module will include a combination of readings, videos, and written and interactive assignments. You'll also complete an exam at the end of each module. You'll engage in discussions with your peers throughout the course. You can read about each of the course components below. Each module takes about 3 to 5 hours to finish.

The course requires a significant time commitment from students. This commitment is both in terms of reading lecture powerpoints prior to reading the chapters, as well as reviewing the material and doing "Check Your Understanding" activities after. In the five weeks of classes, we will cover the 12 chapters of the book. Not every topic will be covered in great depth, but students are expected to study each topic in detail.

### Focus

The Focus introduces the content covered in each module. It outlines the learning objectives and related learning activities. Reading the Focus will help you identify the central concepts of the module and connect what you will learn to the broader context of the course.

### Read

Read pages provide a detailed overview of one or two learning objectives, as well as references to associated pages in the textbook. These sections include key points to address major concepts in the textbook. You must thoroughly understand the key points to successfully complete module quizzes and activities. Reading time will vary from module to module.

### Examine

Examine content helps you gain a deeper understanding of the concepts presented in the learning modules and in the textbook. Often, examine pages feature animations, games, videos, or other interactive learning resources.

### Check Your Understanding

On Check Your Understanding pages, you will practice the module content you've covered using interactive study tools. These interactive study tools will help you assess your progress and identify areas for improvement. Additionally, interactives give you an opportunity to review and apply information presented in your course and in the online textbook before taking quizzes or high-stakes exams.

### Exams

There will be 1 exam given at the end of each module for a total of 12. There will be questions that come directly from the textbook chapters, activities, and videos. Questions may come in the form of multiple choices, free response, or fill in the blank. Students will have 30 minutes to complete each exam. These exams are all on Connect. Please pay attention to the due dates. They are final and will not be extended. You must use Remote Exam Proctor for all your exams (all 12 exams). You need to have both video and audio on. The recording should start prior to starting the test and ends after finishing the test. Your face should be in the field of view.



## **Discussion**

This course has four Discussions, one for each week starting in Week 2. Each discussion requires you to think critically about the content you've learned in the modules for each week. Discussions will be available from Day 1 through to Day 6 at 11:59 p.m Pacific Standard Time (PST) of the assigned week. At the end of Day 6, the Discussion will close, and you will not be able to comment any longer.

Your participation in the Discussions is mandatory and will be evaluated by the course faculty.

## **Online Learning at SCU**

MySCU is SCU's online campus portal. It includes SCU's learning management system (Canvas). It acts as a single point of access for a variety of campus information. It houses resources such as university policies, campus safety procedures, financial aid forms, class schedules, campus news, library databases, and other electronic resources for faculty, staff, and students. Incoming students receive login credentials and learn to navigate MySCU during orientation.

## **Your Keys to Success**

To be successful in this course, you will need to log in regularly and plan to manage your workload. Your participation will be evaluated based on your discussion board contributions and timely completion of assigned work.

## **Self-Directed Learning**

Online courses require motivation, time management, and self-discipline on the part of the learner. Creating a self-directed learning plan will help you improve your independent study skills. Creating a routine weekly study schedule and a quiet working space will help you stay on pace with the class.

## **Online Etiquette**

Follow the professional and online etiquette guidelines below when interacting with your peers and facilitator in the online environment, including discussion boards:

Disagree with others with respect in the form of constructive feedback. Support your position with academic citations from the text or academic literature. Write clearly and concisely and stay on topic.

Do not simply repeat what others have said but provide new information or analysis. If you quote another student's post, be sure to place it in quotation marks. Be mindful that the written word may be misinterpreted by others without hearing your tone and in the absence of face-to-face cues. Avoid the use of strong or offensive language. Check your spelling and grammar before sending emails or posting to the discussion boards.



## 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](#) .