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**UC BERKELEY EXTENSION**  
**General Human Anatomy**  
**X104**  
**(3 semester units in Integrative Biology)**

## About the Course

### Course Description

This course focuses on the correlations between the structures and functions of the various body systems. The functional anatomy of the human body is revealed by gross and microscopic examination. Topics include the cardiovascular, respiratory, gastrointestinal, nervous, and skeletomuscular systems. Disease pathologies affecting normal body function are discussed when appropriate. Gross and microscopic examination is included.

This class is aimed at biology majors, pre-medical and pre-health students. In addition, it is appropriate for returning students interested in a refresher human biology class and professionals in other disciplines interested in a career change to the health sciences.

**Prerequisites:** One year of college-level general biology for majors.

### Course Objectives

Upon completion of this course, students will have a fundamental understanding of the regional organization of the human body and how this organization, in combination with relative structural juxtaposition, establishes the intimate link between structure and function through an emphasis on interactions between the various body systems (skeletal, muscular, nervous, endocrine, circulator, respiratory, and urinary).

Specifically, at the conclusion of this course, students will be able to:

- Use correct anatomic references with regard to regions, relative body positions and sections.
- Identify basic tissues and structures.
- Identify, locate, and describe the function of the major structures of the upper extremity.
- Identify, locate, and describe the function of the major structures of the lower extremity.
- Identify, locate, and describe the function of the major structures of the head and neck region.
- Identify, locate, and describe the function of the major structures of the spinal cord and spinal column.
- Identify, locate, and describe the function of the major structures of thorax region.
- Identify, locate, and describe the function of the major structures of the abdomen.
- Identify, locate, and describe the function of the major structures of the pelvis and perineum.

## Required Textbook and Supplemental Material

Required: *Human Anatomy*, 7th Edition, Martini, et al, (Benjamin Cummings 2012).

Suggested: The Merck Manual of Diagnosis and Therapy, (comprehensive) or The Merck Manual of Patient Symptoms (concise).

## Instructional Method

## Module Sequence

This course consists of 8 modules of study. With the exception of the first module, all modules 2 through 8 can be taken in any order.

## Content Organization: Systemic versus Regional Approach to the Study of Human Anatomy

Human anatomy is usually studied systemically or regionally. In a systemic approach, you would study, for example, the skeletal system by itself, and learn the structure, function, and location of all the bones in the body, head to toe. You then might study the muscle system, and learn the structure, function, and location of all the muscles in the body.

A regional approach considers all the systems involved in a single area simultaneously. For example, a regional consideration of an area of the lower extremity such as the foot, would look at bones (skeletal system), muscles (muscular system), veins, arteries (cardiovascular system), and nerves (nervous system) and illustrate the integral relationship between these structures in that specific location.

This course emphasizes a regional approach to the study of human anatomy because diagnostic decision making and surgical procedures usually require this type of understanding, and medical schools favor this approach. Injuries or diseases usually occur in specific regions of the body and involve multiple body systems.

The lectures and exercises for the most part are organized around regions of the body such as the thorax, abdomen, or head and neck rather than around body systems such as skeletal, cardiovascular, urinary etc.

## Learning Activities

To best assimilate the content, I recommend that you follow this order in the approaching the different activities.

### Module Learning Sequence

1. Guided Readings
2. Multimedia Lectures
3. Case Study Assignment (graded)
  - a) Written Detailed Response Drop Box
  - b) Discussion Forum Response
4. Module Exam (online) (graded)

## 1.Guided Reading

### Regional Focus

The textbook for this course, Human Anatomy, 7th Edition by Martini, Timmons, and Tallitsch takes a systems approach to organizing content. The Guided Reading question sets that you will use in conjunction with the textbook will, however, guide you "regionally" through the systemic organization of the textbook.

With the exception of Module 1, you will not be given specific chapter and page reading assignments. The answer to any particular question might be found in several places and your complete understanding of a region will require that you consult several different chapters (body systems).

Most modules will have several sets of Guided Readings (20 to 30 multiple choice questions) that

focus on a specific region. You should attempt to answer all the questions in the Guided Reading on your own first. Feel free to query or collaborate with your fellow students to check your answers and compare reasoning after you have completed the Guided Reading exercises. This method not only conveys course content but strengthens and develops subject fluency and critical thinking skills, both essential to success within the health care field.

### Comprehensive Focus

In addition to the sets of regionally focused guided reading exercises, you will also have in Modules 1-6 a series of guided readings that deal with anatomical content that is general in nature and not related to any specific region. The material in these comprehensive guided reading sets will NOT be included in your Module Exams, but they will make up **at least half of the material on the Final Comprehensive Exam you will take when you have completed all eight modules.**

You are not going to be graded on the Guided Reading questionnaires, but the exercise of finding the answers by reading and viewing the illustrations in the text is a core part of your learning experience.

## 2. Multimedia Lectures

Once you have completed the Guided Readings, you will then view the multimedia lecture presentations. Each module (2-8) is focused on a specific region of the body. Every module (2-8) has an introductory lecture followed by several case study presentations where content is presented within the context of an injury or illness. In the case study lectures you will be introduced to a patient profile and consult. This will be followed by a content presentation related to the case. Finally, the lecture will terminate in a series of multiple choice questions (ungraded) that reveal the issues in the case study.

## 3. Case Study Assignment

Each module will have a graded Case Study Assignment, which includes a detailed, written response (Drop-Box Assignment) to a series of questions, as well as your participation in a discussion on the diagnosis and treatment in the Discussion Forum.

You will get a single grade for your work on both the submitted Drop Box assignment and your Discussion Forum participation.

## 4. Module Exam

At the end of each module, you will take a fifty multiple-choice question exam. The exam is timed **(seventy-five minutes)** and can only be taken once. It is taken online and is automatically graded.

## Comprehensive Final Exam

When you have completed all the assignments for the eight modules you should begin to prepare to take the final exam. The material for the final exam will be from the Comprehensive Guided Reading exercises and from the modules.

The final exam is proctored and is closed book (no textbook or notes allowed). See Grading below for more details.

- **You must pass the Final Exam to pass the course.**

## Collaboration

You are expected to be an active learner and sharing participant in this course. You are encouraged

to engage not only yourself but your fellow classmates and your instructor. Active participation is crucial to your success in the class. It is encouraged in the Guided Reading exercises, in learning the lecture content, and in the Forum Discussions.

You are NOT allowed to collaborate on the Module Exams or the Final.

### Student Lounge

The Student Lounge is our place for informal discussion, a place to create new topic threads and share common issues or experiences, class-related or not. Please use that forum to post questions about the course material, answers to help other students, and general FAQs so that all students in the course may benefit from the exchange.

### Your Course Grade

Course grades are based on the following:

Case Study Assignments	20%
Module Exams	60%
Final Exam	20%
<b>TOTAL</b>	<b>100%</b>

All of your assignments will be graded on a 100-point scale. **You must pass the Final Exam to pass the course.**

#### Case Study Assignments (DropBox/Discussion Forum) 20%

There are two parts to each Case Study Assignment--a written assignment that you will submit via a Drop Box function and a discussion response that you will post in a Discussion Forum for the module. You will get a single grade for both parts.

##### Drop Box

The Drop Box Assignment should be completed before you do the Discussion Assignment. It consists of a series of short answer questions that will serve as background to the diagnostic discussion in the online Discussion Forum.

##### Discussion Forum

Your discussion participation will be based on your thinking process, explanation, and your involvement in the conversation more than on whether the "right" diagnosis is obtained. You are encouraged to use any resources you have available, general web search, Merck Manual, or WEBMD.

In the Discussion Assignments forum, we will be looking for evidence of participation:

	Poor	Needs Improvement	Meets Expectations	Exceptional
Participation	Minimal posts in number or length. Posts show little or no reflection on the	Posts address the topic but consist mostly of a rote repetition of the	Posts address the topic with reflection. Many responses build on previous	Posts show a genuine interest in contributing to the overall life of the

	topics or previous posts.	study materials. Little or no reflection on previous posts.	posts.	forum.
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### Module Exams (60%)

As previously mentioned every module has a timed fifty question exam that you take online. You may reference your notes and textbook during the exam, HOWEVER, the timed nature of the exam is such that if you have not mastered the material before you take the exam, nothing will help you. Once you start the exam, you cannot stop and return to it at another time.

The module exams are NOT collaborative. They should reflect your mastery of the material. See the Academic Integrity, Research, and Proper Citation below.

### Final Exam (20%)

After you have submitted all assignments for the entire course, you will take a one hundred question multiple-choice/true false, proctored final exam. The duration of the exam is 3 hours. It is closed book. No notes or textbooks allowed. It can take some time to schedule a proctor for your exam, especially if you live outside of California.

UC Berkeley Extension has an office designated for final exam coordination. The course instructors do not play a role for example in the approval of proctors. Information about setting up and taking your final exam is available in the Course Information tab at the top of the Modules tab page.

Final grades are assigned according to the following percentages:

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
Percentage	100-94	93-90	89-86	85-83	82-80	79-76	75-73	72-70	69-66	65-63	62-60	< 60

Although your grades for assignments are recorded in the course gradebook and are available for you to see through the Report tab, you should not count on seeing your final grade recorded there by the time your access to the course ends. Your final letter grade will be mailed to you by the Registrar's office.

### Academic Integrity, Research, and Proper Citation

As an online student, you are encouraged to reach out to your fellow students in the online classroom to discuss materials and ask each other questions, but there are limits to this collaboration. As a UC Berkeley student you are bound by the UC Berkeley Extension Code of Student Conduct, which clearly defines what constitutes cheating, as well as plagiarism and other forms of academic misconduct.

So before you begin your coursework, please read the guidelines for academic integrity in the Course Information folder at the top of the Modules tab page. Along with guidelines for conduct, you'll also find helpful information on how to properly research and cite your sources in order to avoid plagiarism.

### Content Outline

See each module's Learning Activities page for specifics on your assignments.

Module	Lecture Topics	Assignments
1. Basic Anatomic Concepts	<ul style="list-style-type: none"><li>• Terms of Position</li><li>• Basic Tissues and Structures</li></ul>	Reading Assignment Chapters 1 and 3 Discussion Assignments (Introductions)
2. Upper Extremity	<ul style="list-style-type: none"><li>• Introduction</li><li>• Case Study 1</li><li>• Case Study 2</li></ul>	Guided Reading Exercises Case Study Assignment (Written Drop Box/Discussion Forum) Module Exam (online)
3. Lower Extremity	<ul style="list-style-type: none"><li>• Introduction</li><li>• Case Study 1</li><li>• Case Study 2</li><li>• Case Study 3</li><li>• Case Study 4</li></ul>	Guided Reading Exercises Case Study Assignment (Written Drop Box/Discussion Forum) Module Exam (online)
4. Head and Neck	<ul style="list-style-type: none"><li>• Introduction</li><li>• Case Study 1</li><li>• Case Study 2</li><li>• Case Study 3</li><li>• Case Study 4</li></ul>	Guided Reading Exercises Case Study Assignment (Written Drop Box/Discussion Forum) Module Exam (online)
5. Spinal Cord and Spinal Column	<ul style="list-style-type: none"><li>• Introduction</li><li>• Case Study 1</li><li>• Case Study 2</li><li>• Case Study 3</li></ul>	Guided Reading Exercises Case Study Assignment (Written Drop Box/Discussion

		Forum) Module Exam (online)
6. Thorax	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Case Study 1</li> <li>• Case Study 2</li> <li>• Case Study 3</li> <li>• Case Study 4</li> </ul>	Guided Reading Exercises Case Study Assignment (Written Drop Box/Discussion Forum) Module Exam (online)
7. Abdomen	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Case Study 1</li> <li>• Case Study 2</li> <li>• Case Study 3</li> <li>• Case Study 4</li> </ul>	Guided Reading Exercises Case Study Assignment (Written Drop Box/Discussion Forum) Module Exam (online)
8. Pelvis and Perineum	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Case Study 1</li> <li>• Case Study 2</li> <li>• Case Study 3</li> </ul>	Guided Reading Exercises Case Study Assignment (Written Drop Box/Discussion Forum) Module Exam (online)

## End of Course Evaluation

UC Berkeley Extension is committed to improving our online courses and instruction. Please take a few minutes to participate in our End of Course Evaluation to share your opinions about this course. We are interested in your online learning experience, and your candid feedback will help us plan for the future and make improvements. Please take the evaluation before your course End Date.

The evaluation does not request any personal information, and your responses will remain strictly confidential.

To access the evaluation, please follow the link near the bottom of the Modules tab page.