

ANATOMY & PHYSIOLOGY I

BIOL3455.0U1

M; 2:30 PM - 5:20 PM

JSOM 1.217

Instructor Ruben D. Ramirez, M.D., Ph.D.

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Office Hours Monday, 10:00am - 12:00pm & Wednesday: 10:00am - 11:00am

Course Pre-Requisite, Co-Requisite, and/or Other Restrictions:

Pre-requisite: Introduction to Modern Biology II (BIOL2312) or equivalent.

Co-requisite: Human Anatomy & Physiology Lab: BIOL 3455.3U1, 3U2, 3U3, or 8U1.

Lab Instructors	E-mail	Sections
Ruben D. Ramirez, M.D., Ph.D.	Ruben.Ramirez@UTDallas.edu	3U1, 3U2, & 8U1
Brenna Hill, Ph.D.	brh140230@utdallas.edu	3U3

Lab Section	Days & Times	Room	Professor
3U1	W 2:30pm – 5:20pm	SLC 2.206	Dr. Ramirez
3U2	W 11:30am – 2:20pm	SLC 2.206	Dr. Ramirez
3U3	T 11:30am – 2:20pm	SLC 2.206	Dr. Hill
8U1	W 5:30pm – 8:20pm	SLC 2.206	Dr. Ramirez

Required Textbook and Materials:

LECTURE

LAB

1. Fundamental of Anatomy & Physiology

- Authors: Frederic H. Martini, Ph.D., Judi L. Nath, Ph.D. & Edwin F. Bartholomew, M.S.
- 10th edition,
- A La Carte (3 hole punch)
- Plus **Modified** Mastering A&P VP Fundamentals with eText
- VP ISBN-10: 013397426X
- VP ISBN-13: 9780133974263

2. Response Card RF LCD

- By Turning Technologies
- ISBN: 9781934931400

1. Laboratory Manual for Anatomy & Physiology

- Author: Michael G. Wood
- 5th edition
- Main version
- Plus Mastering A&P with eText.
- ISBN-10: 032193556X
- ISBN-13: 9780321935564

Two copies of the lecture textbook (Martini's) are on reserve in the Library. Request these reserved books in Circulation Desk by referring to call numbers #13494 and #13495. They are set for 2-hour check out.

Description:

Biology 3455, Human Anatomy and Physiology I, is the first of a two-part series designed as a comprehensive examination of the basic principles of human physiology in the context of a detailed examination of human anatomy. The course is designed to give the pre-professional health care student a detailed fundamental background to enable the student to excel in the anatomical and physiological sciences within the professional school curriculum. This first-half study of the structure-function relationship includes a survey of tissue types, osseous histology and structures, skeletal muscle physiology and anatomy, neurophysiology and anatomy and sensory systems. Emphasis will be placed on the anatomy of these systems as outlined in a model-based laboratory setting.

Student Learning Outcomes:

1. Understand and be conversant with the anatomy of the human body that includes histology, skeletal system, skeletal muscle, and neuroanatomy;
2. Understand and be conversant with the physiology of the human body that includes histology, skeletal system, skeletal muscle and neurophysiology;
3. Be familiar with the operation of these human organ systems and their interactions within the body;
4. Be familiar with the concepts of integration of operation of these human organ systems within the body.

Grading Policy:

1. Grades for lecture will be calculated as follows:

a. Lecture Exams (3)	60%	}	= Final Overall Grade
b. Lab Practical Exams (2)	30%		
c. Quizzes	5%		
d. Assignments	5%		

2. Grading scale:

Grade	Score	Grade	Score	Grade	Score	Grade	Score
A+	100-96	B+	87-85	C+	77-75	D+	67-65
A	95-92	B	84-82	C	74-72	D	64-62
A-	91-88	B-	81-78	C-	71-68	D-	61-58
						F	57 and below

3. Final grade will be rounded to the nearest integer, e.g., a final grade of 87.5 will round up to 88.00, thus letter grade "A-"; while a final grade of 87.49 will round down to 87.00, thus letter grade "B+". No points or fraction of a point (regardless how small) will be awarded to increase to the next letter grade up (**No Exceptions**).
4. Grades are determined based only on performance. Grades are not based on need, effort, or attendance.
5. I do not curve grades (do not ask, beg, cry or plead).

Lecture Examinations:

Exam I - M, 6/23 at SLC 2.303 (Chapters 1, 5, 6 & 10/11)

Exam II - M, 7/21 at SLC 2.303 (Chapters 12, 13 & 14)

Exam III - F, 8/8 or S, 8/9 at SLC 2.303 (Chapters 15, 16 & 17)

Makeup Exam due to bad weather, or other unexpected event - Pending date/room

Course Policy:

1. **Lecture Exams:** Three (3) lecture exams will be given during the semester. There will be no final exam. Graded exams will not be reviewed in class. Exams will be kept on file in the instructor's office and will be available for review for 1 week (if student wants to review after this period of time, contact professor within this week to make appointment), starting the next day after the exam grades are posted in eLearning. The student is responsible for scheduling time to review. All issues regarding exam questions and grades must be resolved within this week. After this week, grades will be considered final.
2. The test classroom and times for all four **lecture exams** will be announced in eLearning during the first week of class.
3. The average of four lecture exams will count 60% of final overall grade (thus, each lecture exam is 20% of final overall grade). No lecture exam will be dropped.
4. The structure of the exams will be multiple choice, true/false, and matching questions. There will be **100 questions** on all exams, and the time allowed to complete the exam will be **1 hour and 15 minutes**. There may be bonus points on all exams. You will need a Scantron (ParSCORE, SCORE SHEET, Form No. F-1712-PAR-L) for all exams.
5. Everything in the textbook is fair game for lecture exams/quizzes, regardless of whether or not it is presented in class. You are responsible to use all of the information contained throughout the entire chapters to prepare for exams/quizzes (regardless of whether or not material from chapters is presented in class). Information presented in activities of Mastering A&P, such as PhysioEx 9.1, Interactive Physiology, A&P Flix, or Clinical Case Studies, will also be fair game for exams/quizzes.
6. For exam purposes only, when there are conflicts between the information contained in textbook (or any other outside source) and the material presented in class, material presented by the professor in class will rule over what is written in textbook/outside source.
7. Do not miss lecture exams! (If exams are missed you must be able to verify your reason for missing exam).
8. **Make-up lecture exams** are usually not given - if there are circumstances that warrant a make-up the instructor will determine the criteria for such an exam at the appropriate time. The structure of make-up exams will be different than that specify in #4 above.
9. Legitimate Reasons to make-up missed lecture exams are as follows: death of an immediate family member, bona fide medical emergencies, and military orders. Proper documentation must be presented in writing before a make-

up is granted – **no exceptions**. NOTE.- Make up exams will not be granted for other reasons, such as, trips to weddings, graduation, vacations, visits, etc. Please, do not purchase tickets. If you must go to this trip or if it costs excessive amount of money to change trip tickets, reservations, etc., consider dropping the course in the summer semester.

10. **Late to Exam:** Exams are scheduled to begin at the same time as lecture (2:30pm). However, I usually take 15-20 minutes to give a speech about different issues regarding the exam and to shuffle the students. So, no one has a reason to arrive after I have done all of the above. Yet, someone always arrive late. Keep in mind that arriving after the exam has actually begun is very disruptive to your classmates. Be polite to your classmates and arrive on time.

For those who arrive after the exam has begun: if one (1) student finishes the exam and leaves the classroom before you arrive, you will not be allowed to take the exam, and your score for the particular exam will be zero (0).

No exceptions

11. **Lecture Homework:** There will be a **maximum** of 10 homework. Homework will be comprised of activities and reading questions from textbook or activities found in PhysioEx 9.1, Interactive Physiology, A&P Flix, or Clinical Case Studies. Homework will not be timed, but they will have a due date. Late submission will not be accepted (regardless of the reason). There will be no make-up for missing homework either. The average of homework minus the lowest score will count 5% of your lecture grade.

Homework are taken in MasteringAandP.com. They can only be taken once. These are located under 'Homework' tab in MasteringAandP.com. Check the grading setting on each homework under 'Grading Policy' to see how homework will be graded. Below is a sample of grading policy:

Grading Policy for Homework

Number of answer attempts per question is: 6

You gain credit for:

- Correctly answering a question in a Part
- Correctly answering a question in a Hint
- Not opening a Hint (2% bonus)

You lose credit for:

- Exhausting all attempts or giving up on a question in a Part or Hint
- Incorrectly answering a question in a Part or Hint

Homework/Assignments are not timed. But there is a due date. Therefore, late submissions: receive no credit. There will be no make-ups (**no exceptions**)

Hints are helpful clues or simpler questions that guide you to the answer. Hints are not available for all questions. There is **no penalty** for leaving questions in Hints unanswered.

Grading of Incorrect Answers before the last attempt:

- You lose 100%/(# of options - 1) credit per incorrect answer on multiple-choice and true/false questions.
- You lose 3% credit per incorrect answer on questions that are not multiple-choice or true/false.

12. **Lecture Quizzes:** There will be a **maximum** of 10 quizzes posted for in eLearning (Quiz #10 is optional). The average of all quizzes minus the lowest two scores will count 5% of final overall grade.

Quizzes will be taken in eLearning. You will have 1 week (168 hours) to take the quiz (due date and time will be

shown in eLearning). Thus, do not procrastinate, because there will be no make-up for missing quizzes (**absolutely no exceptions**). A missed quiz will receive a zero (0). Read the instructions prior to taking the quiz. Quizzes are timed and only two attempts are allowed (you will get the highest score out of the two attempts).

13. **Lecture Assignments:** Lecture assignments will be comprised of activities and reading questions from textbook or activities found in PhysioEx 9.1, Interactive Physiology (IP), A&P Flix, or Clinical Case Studies. Lecture assignments are not for a grade/score. These lecture assignments are tools to practice and/or reinforce concepts presented in class. These lecture assignments are optional; however, concepts reviewed in these lecture assignments may be used to create questions for exams/quizzes (see clause #5 above).
14. **Lecture Bonus/Extra Points:** There will be in-class activities to evaluate class participation during lecture. Points earned from these in-class activities will be awarded to the corresponding lecture exam. These in-class activities will consist of questions that may cover material presented in any of the following: PhysioEx 9.1 exercises, Interactive Physiology activities, A&P Flix animations, Clinical Case Studies (all of these three are found in the Study Area of MasteringAandP.com) and including textbook/PowerPoint class notes/additional information presented in class. You will need clickers to answer the questions in lecture. Each question answered correctly will be worth a total of 1.0 point: you will earn the first 0.5 points/question just by answering the questions; and you will earn the second 0.5 points/question by answering correctly the questions. A maximum of 5.0 points total per exam will be awarded from these questions. These are in-class activities, thus students missing a class will receive no credit. There will be no make ups for these in-class activities (**no exceptions**).

In addition, bonus points (maximum 6 points) will be made available during all lecture exams. No bonus/extra points for the final overall grade.

15. **Lab Practical Exams:** Two (2) practical lab exams will be given during the semester. The average of all three lab practical exams will count 30% of final overall grade (thus, each lab practical exam is 15% of final overall grade). No make-ups are allowed for practical exams. **No one will be allowed to take practical exams in a lab section in which the student is not enrolled (regardless of the reason).** No lab practical exam will be dropped.
16. Graded lab practical exams will not be reviewed in class. Lab practical exams will be kept on file in the instructor's office and will be available for review for 1 week (if student wants to review after this period of time, contact professor within this week to make appointment), starting the next day after the exam grades are posted in eLearning. The student is responsible for scheduling time to review. All issues regarding exam questions and grades must be resolved within this week. After this week, grades will be considered final.
17. The structure of the lab practical exams will be filling in the blank and short answers. There will be between 60-100 questions in 32 stations (2-4 questions per station). During the practical exam, one (1) minute will be allowed per station (not per question), and ten (10) additional minutes will be allowed at the end of the practical for you to double check your answers. You will not need a Scantron for exams; an answer sheet will be provided. There may be a maximum of 5 bonus points on all practical exams.
18. Any changes to clause # 16 above will be announced by your own lab instructor on the first day of lab class.
19. Everything in the lab manual is fair game for practical lab exams, regardless whether or not it is presented in class. You are responsible to use all of the information contained throughout the entire chapters to prepare for lab practical exams (regardless of whether or not material from chapters is presented in class). Information presented in activities of Mastering A&P, such as Histology Atlas and PAL 3.0, will also be fair game for practical lab exams.

NOTE.- when there are conflicts between the information contained in textbook or any other source and the material presented in class, material presented by the professor in class will rule over what is written in textbook/outside source.

20. **Make-up lab practical exams** are usually not given. If there are circumstances that warrant a make-up practical exam, the instructor of your lab section will determine the criteria for such an exam at the appropriate time.
21. **Lab Assignments:** Lab assignments will be comprised of activities and reading questions from lab manual or activities found in Histology Atlas and PAL 3.0. Lab assignments are not for a grade/score. These lab assignments are tools to practice and/or reinforce concepts presented in class. These assignments are optional; however, concepts reviewed in these lab assignments may be used to create questions for lab practical exams (see clause #19 above).
22. **You will need a UTD photo ID to get into both lecture and lab exams. If you do not have an UTD photo ID presently, please make arrangements to get one before the first exam (photo ID on Driver Licenses/Cards/Badges are not considered substitute of UTD photo ID – we need your UTD number next to your photo in the same document, not just your photo). No exam or grade will be given to students without UTD photo ID (no exceptions).**
23. In keeping with the spirit of the Privacy Act, grades and/or grade information will not be given to anyone other than the student and will not be discussed over the phone or emails.

UT Dallas Syllabus Policies and Procedures:

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

Lecture Schedule:

WEEK	DAY	TOPIC	REQUIRED READING	ASSIGNMENTS
1	6/2	An Introduction to Anatomy & Physiology The Integumentary System	Chapter 1 Chapter 5	HW Chp 01
2	6/9	The Integumentary System Osseous Tissue & Bone Structure	Chapter 5 Chapter 6	HW Chp 05 Case Chp 06 HW Chp 06
3	6/16	Muscle Tissue The Muscular System	Chapter 10 (sections 10-1 to 10-7) Chapter 11 (sections 11-1 to 11-4)	PhysioEx 9.1, Exercise 2 HW Chp 10/11
4	6/23	Exam I	Chps 1, 5, 6 & 10/11	
5	6/30	Neural Tissue	Chapter 12	PhysioEx 9.1, Exercise 3 IP: NS I and II HW Chp 12
6	7/7	The Brain	Chapter 14	HW Chp 14 Case Chp 14
7	7/14	The Spinal Cord, Spinal Nerves, & Spinal Reflexes	Chapter 13	Case Chp 13 HW Chp 13
8	7/21	Exam II	Chps 12, 13 & 14	
9	7/28	Sensory Pathways & The Somatic Nervous System Autonomic Nervous System & Higher-Order Functions	Chapter 15 Chapter 16 (sections 16-1 to 16-7)	HW Chp 15 HW Chp 16
10	8/4	The Special Senses	Chapter 17	HW Chp 17 (Optional) Due on 8/7
	8/8 or 8/9	Exam III	Chps 15, 16 & 17	

NOTE: The professor has the right to change the syllabus at any point during the semester.

7/14 LAST DAY TO WITHDRAW

These descriptions and timelines are subject to change at the discretion of the Professor.

Lab Schedule:

DATES		TOPIC	REQUIRED READING
<i>Tue</i>	<i>Wed</i>		
6/3	6/4	Human Body, Organ Systems, Microscope, The Cell, Cell Transport, & Histology (Epithelial Tissue)	Ex. 2-7
6/10	6/11	Histology (Connective Tissue, Muscle Tissue, & Nervous Tissue), Skin & Membranes	Ex. 8-12
6/17	6/18	Axial Skeleton	Ex. 13-14
6/24	6/25	Appendicular Skeleton	Ex. 15-16
7/1	7/2	Lab Practical I	Ex. 2-16
7/8	7/9	Axial Muscles	Ex. 17-19
7/15	7/16	Appendicular Muscles	Ex. 20-21
7/22	7/23	Nervous System Brain/Cranial Nerves & ANS	Ex. 23 Ex. 25-26
7/29	7/30	Spinal Cord, Spinal Nerves & Reflexes General & Special Senses	Ex. 24 Ex. 27-32
8/5	8/6	Lab Practical II	Ex. 17-32

Tuesday column is for section 3U3; Wednesday column is for sections 3U1, 3U2 & 8U1.

**** Last day to withdraw is 7/14**

NOTE: The professor has the right to change the syllabus at any point during the semester.

Lab Examinations:

Practical I – 7/1 & 7/2 at SLC 2.206 (Exercises 2 - 16)

Practical II – 8/5 & 8/6 at SLC 2.206 (Exercises 17 - 32)