

ANATOMY & PHYSIOLOGY I

BIOL3455.001

M; 4:00 PM - 6:45 PM

FN 2.102

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

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Office Hours Monday & Thursday: 1:00 pm - 3:00pm

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 3455.301, 302, 303, 304, or 601.

Lab Instructors	E-mail	Sections
John C. Kolar, Ph.D.	jck014400@utdallas.edu	301, 302, & 601
Brenna Hill, Ph.D.	brh140230@utdallas.edu	303 & 304

Lab Section	Days & Times	Room	Professor
301	W 4:00pm – 6:45pm	SLC 2.206	Dr. Kolar
302	F 4:00pm – 6:45pm	SLC 2.206	Dr. Kolar
303	T 10:00am – 12:45pm	SLC 2.206	Dr. Hill
304	F 1:00pm – 3:45pm	SLC 2.206	Dr. Hill
601	W 7:00pm – 9:45pm	SLC 2.206	Dr. Kolar

Required Textbook and Materials:

LECTURE

LAB

1. Fundamentals of Anatomy and Physiology, 9th edition, by Frederic H. Martini, PhD & Judi L. Nath, PhD.

Purchase only one option of the following:

- Full version (for both A&P I and II) ISBN-10: 0321719794**
- Split version, UTD Custom Version, Volume 1 (for A&P I only) ISBN: 1256107263**
- Textbook a la Carte (3 hole punch) with MasteringA&P (ISBN: 10:0321737458)**
- Standalone MasteringA&P (ISBN: 10:0321737369)**

2. From MasteringA&P, required activities are:

- Homework**
- PhysioEx 9.1**
- Interactive Physiology**
- A&P Flix**
- Clinical Case Studies**

3. Turning Technology clicker

- Laboratory Manual for Anatomy & Physiology (main version), 5th edition, by Michael G. Wood. Main version ISBN-10: 0321794184
- From MasteringA&P, required activities are:
 - Histology Atlas
 - PAL 3.0

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 (4)	60%	}	= Final Overall Grade
b. Lab Practical Exams (3)	30%		
c. Quizzes	5%		
d. Assignments	5%		

2. Grading scale:

Grade	Score	Grade	Score
A+	100-96	C+	77-75
A	95-92	C	74-72
A-	91-88	C-	71-68
B+	87-85	D+	67-65
B	84-82	D	64-62
		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, 2/3 at HH 2.402 (Chapters 1, 4 & 5)

Exam II - M, 3/3 at HH 2.402 (Chapters 6, 10/11 & 12)

Exam III - M, 4/7 at HH 2.402 (Chapters 13, 14 & 15)

Exam IV - M, 4/28 at HH 2.402 (Chapters 16 & 17)

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

Course Policy:

1. **Lecture Exams:** Four (4) 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 15% 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, regardless of whether or not it is presented in class. You are responsible to use the information contained in the entire chapters to prepare for exams (regardless of material is presented or not in class).
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**.

10. **Lecture Quizzes:** There will be a **maximum** of 10 quizzes posted for in eLearning. 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).

11. **Lecture Homework/Assignments:** There will be a **maximum** of 10 homework/assignments. Homework/assignments 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/assignments are not timed, but they will have a due date. There will be no make-up for missing homework/assignment. The average of homework/assignments minus the lowest score will count 5% of your lecture grade.

Homework/Assignments are taken in [MasteringAandP.com](#). These are located under 'Assignments' tab in [MasteringAandP.com](#). Check the grading setting on each assignment under 'Grading Policy' to see how the assignment is being graded. Below is a sample of grading policy:

Grading Policy for Homework/Assignment

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 Bonus/Extra Points:** There will be in-class activities to evaluate class participation in 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, 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 is 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.

13. **Lab Practical Exams:** Three (3) 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 10% 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.
14. 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.
15. 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.
16. Any changes to clause # 14 above will be announced by your own lab instructor on the first day of lab class.
17. Everything in the lab manual is fair game for lab practical exams, regardless whether or not it is presented in class. 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.
18. **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**).**
19. 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.

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

Lecture Schedule:

Week	Day	Topic	Required Reading	Assignments
1	1/13	An Introduction to Anatomy & Physiology Tissues: Epithelial Tissue	Chapter 1 Chapter 4	HmWk Chp 01
2	1/20	***1/20 MLK HOLIDAY***	No CLASS	
3	1/27	Connective, Muscle, and Nervous Tissues The Integumentary System	Chapter 4 Chapter 5	HmWk Chp 04 HmWk Chp 05
4	2/3	Exam I (HH 2.402) Osseous Tissue & Bone Structure	Chps 1, 4 & 5 Chapter 6	Case Chp 06 HmWk Chp 06
5	2/10	Muscle Tissue The Muscular System	Chapter 10 Chapter 11 (pages 322-331)	PhysioEx 9.1, Exercise 2 HmWk Chp 10/11
6	2/17	Neural Tissue	Chapter 12	PhysioEx 9.1, Exercise 3
7	2/24	Neural Tissue	Chapter 12	IP: NS I and II HmWk Chp 12
8	3/3	Exam II (HH 2.402) The Brain	Chps 6, 10/11 & 12 Chapter 14	HmWk Chp 14
9	3/10	***3/10 – 3/15 SPRING BREAK***	No CLASS	
10	3/17	The Brain & Cranial Nerves	Chapter 14	Case Chp 14
11	3/24	The Spinal Cord, Spinal Nerves, & Spinal Reflexes	Chapter 13	Case Chp 13
12	3/31	Sensory Pathways & The Somatic Nervous System	Chapter 15	HmWk Chp 13/15
13	4/7	Exam III (HH 2.402) Autonomic Nervous System & Higher-Order Functions	Chps 13, 14 & 15 Chapter 16	HmWk Chp 16
14	4/14	The Special Senses - Anatomy	Chapter 17	
15	4/21	The Special Senses - Physiology	Chapter 17	HmWk Chp 17
16	4/28	Exam IV (HH 2.402)	Chps 16 & 17	

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

*****3/28 LAST DAY TO WITHDRAW*****

Lab Schedule:

Dates			Topic	Required Reading
<i>Tue</i>	<i>Wed</i>	<i>Fri</i>		
Jan 14	Jan 15	Jan 17	Human Body, Organ Systems, Microscope, The Cell, Cell Transport, & Histology (Epithelial Tissue)	Ex. 2-7
Jan 21	Jan 22	Jan 24	Histology (Connective Tissue, Muscle Tissue, & Nervous Tissue), Skin & Membranes	Ex. 8-12
Jan 28	Jan 29	Jan 31	Axial Skeleton	Ex. 13-14
Feb 4	Feb 5	Feb 7	Appendicular Skeleton – Upper Limb	Ex. 15
Feb 11	Feb 12	Feb 14	Appendicular Skeleton – Lower Limb & Joints	Ex. 15-16
Feb 18	Feb 19	Feb 21	Lab Practical I	Ex. 2-16
Feb 25	Feb 26	Feb 28	Axial Muscles	Ex. 17-19
Mar 4	Mar 5	Mar 7	Appendicular Muscles – Upper Limb	Ex. 20
Mar 11	Mar 12	Mar 14	***3/10 – 3/15 SPRING BREAK***	NO LAB
Mar 18	Mar 19	Mar 21	Appendicular Muscles – Lower Limb	Ex. 21
Mar 25	Mar 26	Mar 28**	Lab Practical II	Ex. 17-21
Apr 1	Apr 2	Apr 4	Nervous System	Ex. 23
Apr 8	Apr 9	Apr 11	Spinal Cord, Spinal Nerves & Reflexes	Ex. 24
Apr 15	Apr 16	Apr 18	Brain/Cranial Nerves & ANS	Ex. 25-26
Apr 22	Apr 23	Apr 25	General & Special Senses	Ex. 27-32
Apr 29	Apr 30	May 2	Lab Practical III	Ex. 23-32

Tuesday column is for section 303; Wednesday column is for sections 301 & 601; Friday column is for sections 302 & 304.

**** Last day to withdraw is 03/28/2014**

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Lab Examinations:

Practical I - 2/18, 2/19, & 2/21 at SLC 2.206 (Exercises 2 - 16)

Practical II - 3/25, 3/26, & 3/28 at SLC 2.206 (Exercises 17 - 21)

Practical III - 4/29, 4/30, & 5/2 at SLC 2.206 (Exercises 23 - 32)