

MISSION SYLLABUS

Mission 7: Anatomy & Physiology

BS in Biomedical Sciences**Anatomy & Physiology****Course Equivalency: 1110, 2101****Spring 2017: 1/16–5/12**

***This syllabus represents the current mission plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.*

TEXTBOOK AND/OR RESOURCE MATERIAL

ALL REQUIRED CONTENT FOR THIS COURSE IS PAID FOR VIA COURSE FEES AND IS DELIVERED VIA IPAD, WHICH WILL BE ISSUED TO YOU AT YOUR ORIENTATION MEETING FOR THE PROGRAM. THIS LEARNING MATERIAL WILL INCLUDE CAREFULLY CURATED READINGS, VIDEO, INTERACTIVES, ANIMATIONS, APPS AND OTHER SOURCES. THESE KEY RESOURCES, AND MANY OTHER, ARE INCLUDED:

- Principles of Biology, Sapling Learning
- Anatomy and Physiology, OpenStax College, <https://openstaxcollege.org/textbooks/anatomy-and-physiology>
- Conceptos de Biología, OpenStax College, <http://cnx.org/contents/e7a016d3-91fc-4ba0-9e05-a33e986f3d94:1/Conceptos-de-Biolog%C3%ADa>
- Khan Academy, Anatomy and Physiology, <https://www.khanacademy.org/science/health-and-medicine/human-anatomy-and-physiology>
- Khan Academy, Anatomía y fisiología humana, <https://es.khanacademy.org/science/health-and-medicine/human-anatomy-and-physiology>
- Get Body Smart, <http://www.getbodysmart.com/>
- OSCE Skills App--This app gives you step-by-step illustrated instructions for a large number of Objective Structured Clinical Examinations of the kinds used to test future doctors on their competence in performing clinical skills.
- Quick Medical Terminology and Abbreviation Reference App by Simple Tree LLC--This tool allows you look up comprehensive definitions of medical terminology, word parts, and topics. This is a rich tool to which you will likely refer throughout your studies and career.

MISSION DESCRIPTION AND PREREQUISITES

Welcome to the next step of your journey into the world of the biomedical sciences. As you reach each of your learning goals, you will develop the knowledge and skills needed for future courses. You will also learn what the professionals in the field know about medicine and the inner workings of the human body. It will be a fascinating trip through one of the fastest growing areas of scientific study. In this mission, you will study:

The Nervous System

- Anatomy of Neurons and Glial Cells
- Anatomy of the Central and Peripheral Nervous System
- Anatomy of the Brain

The Integumentary and Musculoskeletal Systems

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- Anatomy of the Integumentary & Skeletal Systems
- Anatomy of the Muscular System

The Cardiovascular Respiratory Systems and the Blood

- Anatomy of the heart
- Anatomy of Blood Vessels
- Anatomy of the Respiratory System

The Endocrine & Reproductive Systems

- Anatomy of the Endocrine System Part 1
- Anatomy of the Endocrine System Part 2
- Anatomy of the Male and Female Reproductive Systems

The Urinary and Renal Systems

- Body Fluids
- Anatomy of the Urinary and Renal Systems

The Gastrointestinal System

- Anatomy of the Gastrointestinal System
- Nutrition and the Life Cycle

LEARNING OBJECTIVES/OUTCOMES FOR THE MISSION

As you do the activities in this course, you will work toward demonstrating competence in each of these programmatic objectives:

- Apply knowledge of biology in defining and discussing basic biomedically-related science concepts. (Level 1)
- Describe the structure and function of the body and explain the basis of major pathologies and diseases at the molecular, cellular, organ, and system levels. (Level 1)
- Critically examine the science behind disease prevention and health promotion, especially as related to common chronic conditions. (Level 1)
- Recall the most relevant equations used in the biomedical sciences, describe the phenomenon they explain, and cite how and when they are applied. (Level 1)
- Describe the social and environmental determinants of health and their influences on healthcare and biomedical research; discuss related impacts on individuals, communities, and populations—regionally, nationally, and globally. (Level 1)
- Demonstrate a desire to help others as well as sensitivity to others' needs and feelings. (Level 1)
- Demonstrate knowledge of socio-cultural factors that affect interaction and behaviors, multiple dimensions of diversity, and strategies for interacting effectively with people from diverse backgrounds. (Level 1)
- Demonstrate ability to collaborate with others to achieve shared goals. (Level 1)
- Behave in an honest and ethical manner; cultivate personal and academic integrity; adhere to ethical principles; follow rules and procedures. (Level 2)

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- Consistently fulfill obligations in a timely and satisfactory manner; take responsibility for personal actions and performance. (Level 2)
- Set goals for continuous improvement and for learning new concepts and skills; solicit and respond appropriately to feedback. (Level 2)
- Appropriately utilize campus, community, and other resources to aid in success in the university setting, including progressive awareness of how and when to seek academic assistance or other professional support. (Level 2)

GRADING POLICIES

You will demonstrate your achievement of program competencies by completing the following types of activities. You must receive at least a 70% to receive credit for demonstrating competence. The entire mission is worth 2,000 points.

You will complete the following kinds of activities as you work your way through the program:

Checks for Understanding After you've read, you'll have an opportunity to check your understanding on the readings thru a brief quiz activity. Each check for understanding will be worth 40 points and will make up 30% of your grade.

Homework will be completed on the unit level and will be worth 30% of your final grade. Each homework activity will be worth 40 points each.

Mission Exams (Midterm and Final) cover all the content in the Mission, and are taken after you have successfully completed all of the activities in the Mission and reviewed what you have learned. You will take this exam in class and not on TEx. *The midterm is worth 20% of your grade, 400 points. The final exam is worth 20% of your grade, 400 points. Mission exams are a total of 40% of your final grade.* **No retake of the Midterm and Final Exam will be allowed without a legitimate excuse.**

Assessment	Total Points	Percent
CFU	600	30%
Homework	600	30%
Midterm	400	20%
Final	400	20%
Total	2000	100%

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STAYING ON TRACK

The TEx app on your iPad will help you keep track of your schedule of activity due dates and will let you know if you begin to get off track. Your Instructional Facilitator and Instructors will also be monitoring your work and are there to help you; contact them immediately if you start to struggle. If you get behind, don't give up—work with them to make a plan to get back on track.

ABSENCE AND MAKEUP POLICY

Coached Study Hours and Class Activities are mandatory. If an excused absence is unavoidable, at the Instructor's sole discretion, students may complete an alternate assignment, which may include completing an individual version of the Team-based Learning activity or reading and summarizing a scientific article chosen by the Instructor.

CALENDAR OF EVENTS

The UTRGV academic calendar can be found at <http://my.utrgv.edu> at the bottom of the screen, prior to login. Important dates for Spring 2017 include:

January 17	Classes begin
March 13-17	Spring Break
April 14-15	Easter Holiday, no classes
May 4	Study Day, no exams
May 5-11	Final Exams

Date	Day	Activity	Points	Contact
1/16/17	Week 1	Module 1, Unit 1: Neurons and Glial Cells		
1/16	Mon	Martin Luther King Holiday; university closed		
1/17	Tue	Intro to Mission 5: Integrated Body Systems 1 Intro video 1.1 Fundamentals 1.1 Going Deeper 1.1 Additional Resources Check for Understanding 1.1	40	
1/18	Wed			
1/19	Thurs	1.1 Anatomy of Neurons and Glial Cells Homework	40	
1/20	Fri			

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Dates Varies	Day Varies	Face-to-Face session		
1/23/17	Week 2	Module 1, Unit 2: Anatomy of the Central and Peripheral Nervous System		
1/23	Mon			
1/24	Tue	1.2 Fundamentals 1.2 Going Deeper 1.2 Additional Resources Check for Understanding 1.2	40	
1/25	Wed			
1/26	Thurs	1.2 Anatomy of the Central & Peripheral Nervous Systems Homework	40	
1/27	Fri			
Dates Varies	Day Varies	Face-to-Face session		
1/30/17	Week 3	Module 1, Unit 3: Anatomy of the Brain		
1/30	Mon			
1/31	Tue	1.3 Fundamentals 1.3 Going Deeper 1.3 Additional Resources Check for Understanding 1.3	40	
2/1	Wed			
2/2	Thurs	1.3 Anatomy of the Brain Homework	40	
2/3	Fri			
Dates Varies	Day Varies	Face-to-Face session		
2/6/17	Week 4	Module 2, Unit 1: Anatomy of the Integumentary & Skeletal Systems		
2/6	Mon			
2/7	Tue	2.1 Fundamentals 2.1 Going Deeper 2.1 Additional Resources		

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		Check for Understanding 2.1	40	
2/8	Wed			
2/9	Thurs	2.1 Anatomy of the Integumentary & Skeletal Systems Homework	40	
2/10	Fri			
Dates Varies	Day Varies	Face-to-Face session		
2/13/17	Week 5	Module 2, Unit 2: Anatomy of the Muscular System		
2/13	Mon			
2/14	Tue	2.2 Fundamentals 2.2 Going Deeper 2.2 Additional Resources Check for Understanding 2.2	40	
2/15	Wed			
2/16	Thurs	2.2 Anatomy of Muscular System Homework	40	
2/17	Fri			
Dates Varies	Day Varies	Face-to-Face session		
2/20/17	Week 6	Module 3, Unit 1: Anatomy of the Heart		
2/20	Mon			
2/21	Tue	3.1 Fundamentals 3.1 Going Deeper 3.1 Additional Resources Check for Understanding 3.1	40	
2/22	Wed			
2/23	Thurs	3.1 Anatomy of the Heart & Blood Homework	40	
2/24	Fri			
Dates Varies	Day Varies	Face-to-Face session		
2/27/17	Week 7	Module 3, Unit 2: Anatomy of Blood Vessels		
2/27	Mon			
2/28	Tue	3.2 Fundamentals		

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		3.2 Going Deeper 3.2 Additional Resources Check for Understanding 3.2	40	
3/1	Wed			
3/2	Thurs	3.2 Anatomy of Blood Vessels Homework	40	
3/3	Fri			
Dates Varies	Day Varies	Face-to-Face session		
3/6/17	Week 8	Module 3, Unit 3: Anatomy of the Respiratory System		
3/6	Mon			
3/7	Tue	3.3 Fundamentals 3.3 Going Deeper 3.3 Additional Resources Check for Understanding 3.3	40	
3/8	Wed			
3/9	Thurs	3.3 Anatomy of the Respiratory System Homework	40	
3/10	Fri			
Dates Varies	Day Varies	Face-to-Face session Midterm	400	
3/13/17	Week 9	Spring Break		
3/13	Mon	Spring Break		
3/14	Tue	Spring Break		
3/15	Wed	Spring Break		
3/16	Thurs	Spring Break		
3/17	Fri	Spring Break		
3/20/17	Week 10	Module 4, Unit 1: Anatomy of the Endocrine System – Part 1		
3/20	Mon			
3/21	Tue	4.1 Fundamentals 4.1 Going Deeper 4.1 Additional Resources		

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3/22	Wed			
3/23	Thurs	Check for Understanding 4.1	40	
3/24	Fri			
Dates Varies	Day Varies	Face-to-Face session		
3/27/17	Week 11	Module 4, Unit 2: Anatomy of the Endocrine System – Part 2		
3/27	Mon			
3/28	Tue	4.2 Fundamentals 4.2 Going Deeper 4.2 Additional Resources Check for Understanding 4.2	40	
3/29	Wed			
3/30	Thurs	4.1 & 4.2: Anatomy of the Endocrine System Homework	80	
3/31	Fri			
Date Varies	Day Varies	Face-to-Face session		
4/3/17	Week 12	Module 4, Unit 3: Anatomy of the Male and Female Reproductive Systems		
4/3	Mon			
4/4	Tue	4.3 Fundamentals 4.3 Going Deeper 4.3 Additional Resources Check for Understanding 4.3	40	
4/5	Wed			
4/6	Thurs	4.3: Anatomy of the Male and Female Reproductive Systems Homework	40	
4/7	Fri			
Dates Varies	Day Varies	Face-to-Face session		
4/10/17	Week 13	Module 5, Unit 1: Body Fluids		
4/10	Mon			

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4/11	Tue	5.1 Fundamentals 5.1 Going Deeper 5.1 Additional Resources Check for Understanding 5.1	40	
4/12	Wed			
4/13	Thurs	5.1: Body Fluids Homework	40	
4/14	Fri	Easter Holiday; no classes		
Dates Varies	Day Varies	Face-to-Face session		
4/17/17	Week 14	Module 5, Unit 2: Anatomy of the Urinary and Renal Systems		
4/17	Mon			
4/18	Tue	5.2 Fundamentals 5.2 Going Deeper 5.2 Additional Resources Check for Understanding 5.2	40	
4/19	Wed			
4/20	Thurs	5.2: Anatomy of the Urinary and Renal Systems Homework	40	
4/21	Fri			
Dates Varies	Day Varies	Face-to-Face session		
4/24/17	Week 15	Module 6, Unit 1: Anatomy of the Gastrointestinal System		
4/24	Mon			
4/25	Tue	6.1 Fundamentals 6.1 Going Deeper 6.1 Additional Resources Check for Understanding 6.1	40	
4/26	Wed			
4/27	Thurs	6.1: Anatomy of the Gastrointestinal System Homework	40	
4/28	Fri			

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Dates Varies	Day Varies	Face-to-Face session		
5/1/17	Week 16	Module 6, Unit 2: Nutrition and Life Cycle		
5/1	Mon			
5/2	Tue	6.2 Fundamentals 6.2 Going Deeper 6.2 Additional Resources Check for Understanding 6.2	40	
5/3	Wed			
5/4	Thurs	6.2: Nutrition and the Life Cycle Homework Study Day	40	
5/5	Fri	Study Day		
Date Varies	Day Varies	Face-to-Face session		
5/8/17	Week 17	Final Exam Week		
5/8	Mon			
5/9	Tue			
5/10	Wed			
5/11	Thurs			
5/12	Fri			
Dates Vary	Days Vary	FINAL EXAM	400	
	Total		2000	

INSTRUCTOR AND INSTITUTIONAL POLICY

FORMATTING

In order to ease the peer review and submission processes, please use a font and text size that will make it easier for your readers to print and respond to your work. Additionally, when submitting drafts to your instructor, please save and submit your rough drafts in one of the following formats: DOC/DOCX, RTF, Google Docs. Submitted final drafts should be saved as PDF, JPEG, or some other final and universal format.

When you save your drafts, use the following naming convention: UTRGV username (your

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email address before the @ sign), assignment abbreviation (this will be announced with each assignment), due date. For example: azapata8 GA 06.15.15

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LATE WORK

Late work makes life hard for all of us (you, your instructor, your peers, the program, the department, the institution, etc.), so don't count on turning any in. If you know of an upcoming absence, complete and turn in your work early. The class is designed so that you can miss some work in an emergency without it destroying your standing in the class. However, given your busy calendar, you should endeavor to complete your work with some pace.

MATERIAL IN CLASS AND PUNCTUALITY

Bring everything to class every day, including your iPad, and be on time. If we start an activity and you don't have the necessary materials or walk in late, you won't be able to constructively contribute to the work we do in class.

UTRGV POLICY STATEMENTS**Students With Disabilities:**

If you have a documented disability (physical, psychological, learning, or other disability which affects your academic performance) and would like to receive academic accommodations, please inform your instructor and contact Student Accessibility Services to schedule an appointment to initiate services. It is recommended that you schedule an appointment with Student Accessibility Services before classes start. However, accommodations can be provided at any time. Brownsville Campus: Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at accessibility@utrgv.edu. Edinburg Campus: Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at accessibility@utrgv.edu.

Mandatory Mission Evaluation Period:

Students are required to complete an ONLINE evaluation of this mission, accessed through your UTRGV account (<http://my.utrgv.edu>); you will be contacted through email with further instructions. Students who complete their evaluations will have priority access to their grades.

Attendance:

Students are expected to attend all scheduled classes and may be dropped from the mission for excessive absences. UTRGV's attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations.

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Scholastic Integrity:

As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the mission and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism, and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

Sexual Harassment, Discrimination, And Violence:

In accordance with UT System regulations, your instructor is a “responsible employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this mission through writing, discussion, or personal disclosure. More information can be found at www.utrgv.edu/equity, including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect in an environment free from sexual misconduct and discrimination.

Course Drops:

According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six missions during their undergraduate career. Missions dropped at other Texas public higher education institutions will count toward the six-mission drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.