The University of Texas Rio Grande Valley

BS in Biomedical Sciences
Mission 5: Introduction to Integrated Body Systems Part 1
Course Equivalency: 1108, 3104, 3108
Spring 2016: 1/18–3/12

***This syllabus represents the current course 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.

The following materials, and many others, 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.
- Medical Dictionary by Farlex App--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.

COURSE 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
  - Neurons and Glial Cells
  - The Central and Peripheral Nervous System
  - Higher Brain Function
- The Musculoskeletal Systems
  - Bone as a Tissue
  - Muscle Tissue and Physiology
- The Cardiovascular Respiratory Systems and the Blood
  - The Cardiac Cycle and the Heart
  - Arteries and Veins
  - The Respiratory System

LEARNING OBJECTIVES/OUTCOMES FOR THE COURSE

As you complete 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)
- 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 3,000 points.

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

Check for Understanding After you've read, you'll have an opportunity to self evaluate your understanding on the content thru a quiz. You will receive a grade based on the practice set that follows.

Practice consists of quiz-like questions with dynamic feedback designed to determine your knowledge and skills, such as problem solving. *You will receive 112-114 points for Practice activities completed, for a total of 900 points or approximately 30% of your total grade. You must receive at least a 70% in order to move forward. You may redo Practice activities as many times as you like, and the highest score you receive will be recorded.*

Contextualized Performance-based Assessment (PBA) activities require you to *apply* content and concepts you have learned to aspects of human biology and health. Some of these assessments will be done in class and they will be graded by your instructor. *In this Mission, you can earn up to 450 points, or 15% of your total grade, on the three PBAs.*

Team-based Learning activities (TBL) are completed in groups in class and require out of class preparation prior to attending class. These activities emphasize *integration* of content and concepts learned in other activities. They also emphasize diseases, conditions, and other aspects of human

biology and health. Y*ou can earn up to 450 points, or approximately 15% of your total grade, on* TBLs. Team-based Learning activities are graded using an immediate format form (readiness assessment test). The TBL will contain two sets of grades: an individual grade and a team based grade.

End of Mission Exams 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. *You can earn up to 1200 points on the exam for a total of 40% of your final grade.* **No retake of the End of Mission Exam will be allowed without a legitimate excuse.**

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 and legitimate, at the Instructor's sole discretion, students may complete an alternate assignment.

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 2016 include:

January 18 MLK Day

January 18 Classes begin

Feburary 3 Census Day

March 14- 18 Spring Break

April 13 Drop/ Withdrawal Deadline

May 5 Study Day; no classes

May 6- 12 Final Exams

Date	Day	Activity	Points	Contact
1/19	Tuesday	The Term Begins! Intro to Mission 5: Integrated Body Systems 1 Intro video Module 1, Unit 1: Neurons and Glial Cells Practice 1.1	114	Faculty
1/20	Wednesday	Coaching		IF
1/21	Thursday			
1/22	Friday	Face to Face Session		Faculty
1/25	Monday	Module 1, Unit 2: The Central and Peripheral Nervous System Face to Face Session		Faculty
1/26	Tuesday	Practice 1.2	114	
1/27	Wednesday	Coaching		IF
1/28	Thursday			
1/29	Friday	Face to Face Session - Team-based Learning 1	75	Faculty
2/1	Monday	Module 1, Unit 3: Higher Brain Function Face to Face Session		Faculty
2/2	Tuesday	Practice 1.3	112	
2/3	Wednesday	Coaching		IF

2/4	Thursday			
2/5	Friday	Face to Face Session – Team-based Learning 2	75	Faculty
2/8	Monday	Performance-based Assessment 1 Due Module 2, Unit 1: Bone as a Tissue Face to Face Session	150	Faculty
2/9	Tuesday	Practice 2.1	112	
2/10	Wednesday	Coaching		IF
2/11	Thursday			
2/12	Friday	Face to Face Session – Team-based Learning 3	75	Faculty
2/15	Monday	Module 2, Unit 2: Muscle Tissue and Physiology Face to Face Session		Faculty
2/16	Tuesday	Practice 2.2	112	
2/17	Wednesday	Coaching		IF
2/18	Thursday			
2/19	Friday	Face to Face Session – Team-based Learning 4	75	Faculty
2/22	Monday	Performance-based Assessment 2 Due Module 3, Unit 1: The Cardiac Cycle and the Heart Face to Face Session	150	Faculty
2/23	Tuesday	Practice 3.1	112	
2/24	Wednesday	Coaching		IF
2/25	Thursday			
2/26	Friday	Face to Face Session – Team-based Learning 5	75	Faculty

2/29	Monday	Module 3, Unit 2: Arteries and Veins Face to Face Session		Faculty
3/1	Tuesday	Practice 3.2	112	
3/2	Wednesday	Coaching		IF
3/3	Thursday			
3/4	Friday	Face to Face Session - Team-based Learning 6	75	Faculty
3/7	Monday	Module 3, Unit 3: The Respiratory System Face to Face Session		Faculty
3/8	Tuesday	Practice 3.3	112	
3/9	Wednesday	Coaching		IF
3/10	Thursday			
3/11	Friday	Performance-based Assessment 3 Due	150	Faculty
	Coached Study Hrs	Exam	1,200	
	Total		**3,000**	

Students must complete all activities prior to taking the final exam

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 Course Evaluation Period:
Students are required to complete an ONLINE evaluation of this course, 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 course 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.

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 course 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 course 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 courses during their undergraduate career. Courses dropped at other Texas

public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.