The University of Texas Rio Grande Valley

BS in Biomedical Sciences
Mission 2: Cells and Tissue
Mission Equivalency: 1103; 2102.01
FALL 2016: 8/29 - 12/15

Contact Information:
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***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 mission is paid for via mission 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 website. http://www2.saplinglearning.com/introductory-biology. Accessed May 9, 2016.
- Biology. OpenStax College website. https://openstaxcollege.org/textbooks/biology. Accessed May 6, 2016
- Anatomy and physiology. OpenStax College website. https://openstaxcollege.org/files/textbook_version/low_res_pdf/13/AnatomyAndPhysiology-LR.pdf Accessed May 6, 2016.
- Biology. Khan Academy website. https://www.khanacademy.org/science/biology. Accessed May 6, 2016.
- Biología. Khan Academy website. https://es.khanacademy.org/science/biology. Accessed May 6, 2016.

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 necessary to contribute to the health and well being of many members of your community. You will also learn what the professionals in the field know about the inner workings of the human body and medicine. It will be a fascinating trip through one of the fastest growing areas of scientific study. In this mission, you will study:

- Types of cells, cellular structure and communication
- Tissue types and functions
- Cell functions, reproduction, metabolism and respiration

LEARNING OBJECTIVES/OUTCOMES FOR THE MISSION

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

- 1.B: Apply knowledge of biology in defining and discussing basic biomedically-related science concepts. (Level 1)
- 2.A: 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)
- 2.B: Critically examine the science behind disease prevention and health promotion, especially as related to common chronic conditions. (Level 1)
- 4.A: Describe and explain relevant knowledge of social, environmental, and policy factors that affect health and the interaction of these factors in therapeutic interventions, disease prevention, health promotion, and health disparities in simple, formal learning experiences. (Level 1)
- 9.A: Demonstrate a desire to help others and sensitivity to others' needs and feelings. (Level 1)
- 9.B: Demonstrate knowledge of socio-cultural factors that affect interaction and behaviors; multiple dimensions of diversity; strategies for interacting effectively with people from diverse backgrounds. (Level 1)
- 9.C: Demonstrate ability to work collaboratively with others to achieve shared goals. (Level 1)
- 10.A: Behave in an honest and ethical manner; cultivate personal and academic integrity and adhere to ethical principles and follow rules and procedures. (Level 2)
- 10.B: Consistently fulfill obligations in a timely and satisfactory manner; take responsibility for personal actions and performance. (Level 2)

- 10.C: Set goals for continuous improvement and for learning new concepts and skills; solicit and respond appropriately to feedback. (Level 2)
- 10.D: Appropriately utilize campus, community, and other resources to help one succeed 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.

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

Checks for Understanding (CFUs) are quiz-like questions with dynamic feedback so you and your instructors can monitor your progress and understanding of key concepts. These key concepts are foundational and key to your success in the biomedical sciences. **Therefore, you must do the checks for understanding over until you are able to answer all of the questions correctly**. *You will receive 40 points for each check for understanding activity for a total of 240 points or 12% of your total grade. You may redo checks for understanding as often as necessary to get the answers correct***.**

Mini-lectures are short presentations that are delivered to fellow students in order to teach them about a particular subject. Students are evaluated based on a predetermined set of criteria. *You may receive 225 points for a total of 11% of your total grade.*

Contextualized Performance-Based Assessment (PBA) activities require you to *apply* content and concepts you have learned to aspects of human biology and health. They will be graded by your instructor. *In this Mission, you may receive 50 pts for each PBA for a total of 150 pts or 8% of your total grade.*

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 100 points, or approximately 30% 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.

Coach study hours are included as part of your attendance and participation for the mission. *You can earn up to 35 points or approximately 2% of your total grade.*

End of Mission Exam: After you have successfully completed all of the activities in the Mission, you will review what you have learned and take an exam that covers all of the content in the Mission. You will take this exam in class and not on TEx. *You can earn up to 750 points on the*

exam for a total of 38% of your final grade. ***No makeup of the final exam will be allowed without a legitimate excuse.*** *In the event of a legitimate and documented absence, you must consult the instructor within 24 hours of your absence from the in-class final exam. Absences without a valid reason will result in a grade of zero for the missed exam.*

Assessment	Total Points	Percent
CFU	240	12%
IRAT	300	15%
GRAT	300	15%
Mini Lecture	225	11%
PBA	150	7.5%
SLH/CSH	35	1.5%
Exam	750	38%
	2000	**100%**

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 Fall 2016 include:

August 29 Classes begin

September 5 Labor day, no classes

November 24- 25 Thanksgiving holiday, no classes

December 8 Study day, no classes

December 9-15 Final exams

Note: Face-to-face and CSH days and times may vary.

Date	Day	Activity	Points	Contact
8/29/16	Week 1	Module 1 Introduction to the cell		
8/29	Mon	Learn about cell structure and function Check for understanding	 40	
8/30	Tue			
8/31	Wed			
9/1	Thur			
9/2	Fri			
* Dates/ Day varies		Coach study hours Q&A SLM/CSH	 6	IF
* Dates/ Day varies		Face-to-face Lecture IRAT GRAT	 50 50	Professor
9/5/16	Week 2	Module 1 Introduction to the cell		
9/5	Mon			
9/6	Tue	Learn about plasma membrane structure and function Check for understanding	 40	
9/7	Wed			
9/8	Thur			
9/9	Fri			
* Dates/ Day varies		Coach study hours Q&A SLM/CSH	 6	IF
* Dates/ Day varies		Face-to-face Lecture IRAT GRAT	 50 50	Professor
9/12/16	Week 3	Module 1 Introduction to the cell		

9/12	Mon	Learn about cellular communication Check for understanding	40	
9/13	Tue	Performance-Based Assessment	50	
9/14	Wed			
9/15	Thur			
9/16	Fri			
* Dates/ Day varies		Coach study hours Q&A SLM/CSH	6	IF
* Dates/ Day varies		Face-to-face Lecture IRAT GRAT	50 50	Professor
9/19/16	Week 4	Module 2 Tissues types and functions		
9/19	Mon	Learn about epithelial and connective tissue Check for understanding	40	
9/20	Tue			
9/21	Wed			
9/22	Thur			
9/23	Fri			
* Dates/ Day varies		Coach study hours Q&A SLM/CSH	6	IF
* Dates/ Day varies		Face-to-face Lecture IRAT GRAT	50 50	Professor
9/26/16	Week 5	Module 2 Tissues types and functions		

9/26	Mon	Learn about nervous and muscular tissues Check for understanding	40	
9/27	Tue	Performance-Based Assessment	50	
9/28	Wed			
9/29	Thur			
9/30	Fri			
* Dates/ Day varies		Coach study hours Q&A SLM/CSH	6	IF
* Dates/ Day varies		Face-to-face Lecture IRAT GRAT	50 50	Professor
10/3/16	Week 6	Module 3 Cell functions and cycles		
10/3	Mon	Learn about cell reproduction and metabolism and cellular respiration	40	
10/4	Tue	Performance-Based Assessment	50	
10/5	Wed			
10/6	Thur			
10/7	Fri			
* Dates/ Day varies		Coach study hours Q&A SLM/CSH	5	IF
* Dates/ Day varies		Face-to-face Lecture IRAT GRAT Mini lecture (may be broken up into 2 weeks based on student class size)	50 50 225	Professor

10/10/16	Week 7	Final exam		
10/10	Mon			
10/11	Tue			
10/12	Wed			
10/13	Thur			
10/14	Fri			
* Dates/ Day varies		Final exam	750	Professor
10/17/12	Week 8	**Week 8**		
10/17	Mon			
10/18	Tue			
10/19	Wed			
10/20	Thur			
10/21	Fri			
	Total		2000	

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.

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.