

THE UNIVERSITY OF TEXAS RIO GRANDE VALLEY

BMED 4310-02: Advanced Cell Biology SYLLABUS – SPRING 2016

INSTRUCTOR & OFFICE HOURS:

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OFFICE HOURS:

M W 10 AM – 12 PM

MEETING TIMES AND LOCATION:

T 11:00AM- 12:40 PM

Biomed Research Prof Bldg # 99 1.207

Brownsville Campus,

TEXTBOOK AND/OR RESOURCE MATERIAL:

Molecular Biology of the Cell 6th Edition

by Bruce Alberts , Alexander Johnson, Julian Lewis

ISBN-10: 0815344325

- ISBN-13: 978-0815344322

COURSE DESCRIPTION:

Students who successfully complete this course will acquire in depth understanding and advanced knowledge of a range of general and specialized areas in cell biology. They will develop insight into the complexities of cell structure and function, the molecular controls that govern the cells' dynamic properties, and cellular interactions with the organism as a whole. A further goal of this course is to educate and train the students in grant writing skills. Therefore, an important component of this course will be homework assignments consisting of developing research proposals based on selected hypothesis from the course topics. These assignments will receive written feedback from faculty who will comment on strengths and weaknesses of the students' proposals

PRE-REQUISITES/ CO-REQUISITES:

BMED 1103 - Intro Cell Bio or Consent of advisor

COURSE LEARNING OUTCOMES:

This course aims to provide students with a basic understanding of

1. Describe the basic properties of eukaryotic cell
2. List and describe the function of the major biological molecules
3. Describe the basic function of cellular organelles and structures
4. Discuss the nature of gene regulation
6. Describe the processes of protein synthesis, processing, and regulation
7. Discuss the nature of cell signaling
8. Prepare written reviews of the scientific literature.

GRADING POLICIES: (PASSING GRADE FOR THIS COURSE IS C)

Exam 1	20%
Exam 2	20%

Score Range	Grade
90-100	A

Exam 3	20%
Presentation	20%
Quiz	20%

80-89	B
70-79	C
60-69	D
<60	F

COURSE IMPORTANT DATES:

The UTRGV academic calendar can be found at <http://my.utrgv.edu> (Important dates for Spring 2016):

Jan. 19 th	Classes begin
Feb. 3 rd	Census day
March 14-18	Spring Break
April 13 th	Drop/Withdrawal deadline
May 5 th	Study day
May 6-12	Final Exams
May 14 th	Commencement

CALENDAR OF ACTIVITIES

WEEK	DATE	TOPICS	Reading Assignments (Done Before Class)
1	1/19	Introduction and Review of Plasma Membrane and Organelles	
2	1/26	Membrane Transport of Small Molecules and the Electrical Properties of Membranes	Chapter 11
3	2/2	Intracellular Compartments and Protein Sorting 1	Chapter 12
4	2/9	Intracellular Compartments and Protein Sorting 2	Chapter 12
5	2/16	Exam #1	Chapter 13
6	2/23	Intracellular Membrane Traffic	Chapter 16
7	3/1	Cell Signaling 1	Chapter 15
8	3/8	The Cytoskeleton	Chapter 15
9	3/15	No class: Spring Break	
10	3/22	Cell Junctions	Chapter 16
11	3/29	Exam #2	Chapter 15-16
12	4/5	The Cell Cycle and Cell Death	Chapter 17 and 18
13	4/12	the Extracellular Matrix	Chapter 19

14	4/19	Stem cell and tissue renew	Chapter 20
15	4/26	Group Presentations: cancer	
16	5/3	Exam3	
17	5/9	Final Exam Week: Exam #3 (Date TBD)	All chapters

ATTENDANCE POLICY:

Attendance is mandatory. Any disrespect will imply a reduction of 10% of the final grade.

There will be no makeup assignments given regardless of circumstance for this course.

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. Online evaluations will be available May , 2016. 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.