

BIOL 3301-002: Cell Physiology Fall 2015

Instructor: Professor Laura D. Mydlarz

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Dr. Mydlarz Office Hours: Tuesday 2-3pm, Thursday 10-12 in LS 235

Section Information: BIOL 3301-002

Time and Place of Class Meetings: Tuesday and Thursday 12:30 -2pm, Life Science 124

Student Teaching assistants: Brant Shipferling and Shahzeb Saiyed

Student TA office hours: Wednesdays 1-3pm Science Hall 121.

Description of Course Content: This course is a detailed tour of the inner workings of the cell. From the structure and function of each organelle to how cells communicate. The material is linked to real world and current content whenever possible.

Student Learning Outcomes:

1. Identify the major parts of the cell and explain key functions of each part. Build Structure to Function relationships.
2. Understand the fundamental physiological mechanisms of cell function.
3. Know the scientific methods that are currently being used to explore cell physiology.
4. Relate cell mechanisms to disease and dysfunction.

Textbooks and Other Course Materials: **THE CELL: A Molecular Approach**, 6th edition, Cooper and Hausman. You will also take quizzes on blackboard.

Grading and Descriptions of major assignments and examinations:

12% - 8 quizzes throughout the semester

8% - homework question

20% - Exam 1

20% - Exam 2

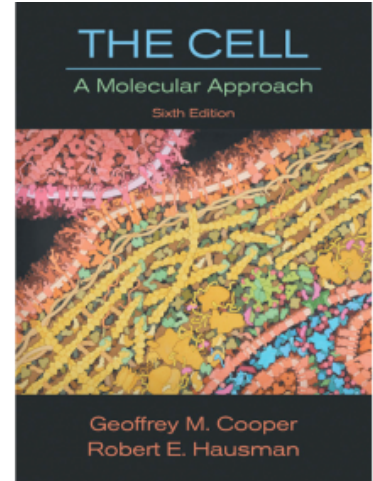
20% - Exam 3

20% - Exam 4

Comprehensive final – replaces 1 exam grade

Quizzes will be taken online through blackboard. Quizzes will open Friday at noon and close Sunday at 5pm. The answers will be released after the quiz closes. Each quiz will be worth about 1.5% of your grade. Some questions from the exam will be taken from the quizzes, so take this seriously. There will be no practice questions or old exams given. The quizzes are the practice exams. There is no make up for missed quizzes.

Exams will have multiple choice questions and short answer/problem-solving questions. Exams are given on Tuesdays in class. Look at the schedule now and mark the days down. There is no make up for missed semester exams, only the final can replace the lowest exam grade or a missed exam. The final will be on blackboard between Dec. 11 and 15th. Grade replacement will be determined after all the exams are taken, the calculations will be made and the best grade chosen for you by the program.



Exams will be returned on the Thursday or Tuesday after the exam. I will have the exams in class only once. The students TAs will have them in their office hours the following Wednesday.

Attendance: Attendance is mandatory for success in this course.

Other Requirements: Exercise critical thinking skills, do your own research, be in charge of your own learning, keep up with the reading and attend class without exception. We will also have a discussion board and keeping up with the discussion and questions on the board is also a part of this class.

Expectations for Out-of-Class Study: Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional **9 hours** per week of their own time in course-related activities, including reading required materials, going over the material, doing your own research and taking quizzes, preparing for exams, etc.

Make-up Exams and Quizzes: As stated above, there will be no make up exams or quizzes.

Course Schedule. “As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. – Laura Mydlarz.”

Week		Date	Topic	Quiz week	Lecture notes	Book chapter	Notes
1	Th	Aug. 27	Introduction and class policy		Lecture 1		If you want to succeed in this class show up to first lecture
2	Tues	Sep. 1	Molecules of life - macromolecules		Lecture 2	2,3	
	Th	Sep. 3	Biomembrane structure and function	Quiz1	Lecture 3	2,3	
3	Tues	Sep. 8	Membrane transport		Lecture 4	13	
	Th	Sep. 10	Glucose transport	Quiz2	Lecture 5	13	
4	Tues	Sep. 15	That Sugar Film				Sept. 14th census date
	Th	Sep. 17	That Sugar Film -discussion		Lecture 6		Homework due
5	Tues	Sep. 22	Ion transport		Lecture 7	13	
	Th	Sep. 24	Mitochondria	Quiz3	Lecture 8	11	
6	Tues	Sep. 29	Exam 1		Lecture 2-7		
	Th	Oct. 1	Protein synthesis and transport to mitochondria, nlcues, peroxisome		Lecture 9 and 10	9	
7	Tues	Oct. 6	Protein syntheis and ER		Lecture 11	10	
	Th	Oct. 8	Vessicles and Golgi apparatus	Quiz4	Lecture 12	10	
8	Tues	Oct. 13	Lysozomes and protein degradation		Lecture 13	8	
	Th	Oct. 15	Endocytosis, synapse and anthrosclerosis	Quiz5	Lecture 14	13	
9	Tues	Oct. 20	Exam 2		Lecture 7-13		
	Th	Oct. 22	How do cells detect signals		Lecture 15	15	
10	Tues	Oct. 27	Got Stress?		Lecture 16	15	
	Th	Oct. 29	Sensory receptors	Quiz6	Lecture 17		
11	Tues	Nov.3	Insulin signaling		Lecture 18	15	drop
	Th	Nov. 5	Cancer	Quiz7	Lecture 19	18	
12	Tues	Nov. 10	Exam 3		Lecture 14-19		
	Th	Nov. 12	Cytoskeleton and Natural drugs		Lecture 20	12	
13	Tues	Nov. 17	Actin and muscle		Lecture 21	12	
	Th	Nov. 19	Microtubules	Quiz8	Lecture 22	12	
14	Tues	Nov.24	Thanksgiving Holiday				
	Th	Nov.26	Thanksgiving Holiday				
15	Tues	Dec. 1	Intermediate filaments		Lecture 23	12	
	Th	Dec. 3	Exam 4		Lecture 20-23		
16		Dec. 8					last day of class
		Dec. 11-15	Final exam cumulative on blackboard		If miss an exam or want to replace exam		

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. Students will not be automatically dropped for non-attendance. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/aao/fao/>).

Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the Americans with Disabilities Act (ADA). All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Title IX: The University of Texas at Arlington is committed to upholding U.S. Federal Law "Title IX" such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit www.uta.edu/titleIX.

Academic Integrity: Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System Regents' Rule 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University. Cheating or collusion that appears to be on the course level and involve many students will result in automatic failure of the course.

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.
