

Biology 1441, Spring 2014
Cell & Molecular Biology
Section 042 TR 3:30-4:50
122 Life Sciences

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Faculty Profile: <https://www.uta.edu/mentis/public/#profile/profile/edit/id/4019/>

Office Hours: TR 1:00-3:00 or by appointment (*note: I am NOT on campus MWF this semester.)

COURSE DESCRIPTION: The first of an introductory biology sequence, this course focuses on the chemical and molecular basis of life, including metabolism, cell structure and function, and genetics. Laboratory experiments are designed to complement theory presented in lecture.

STUDENT LEARNING OUTCOMES: 1) Students will learn the essential details of cell and molecular biology at an introductory level. 2) Students will learn to apply their knowledge using critical thinking skills.

TEXTBOOK: Biology: 8th, 9th or 10th edition, Campbell and Reece (access code **not** required)

LABORATORY MANUAL: The lab manual will be available for purchase IN LAB for \$20, cash or credit.

GRADING: Your lecture grade is 67% (2/3) of your total grade. Your lab grade is 33% (1/3) of your total grade.

A. 3 Lecture Exams, each 100 pts (50 multiple choice questions). *Your lowest lecture exam grade will be dropped.*

NOTE: If you receive A's on all three lecture exams, you will take a shortened final exam of 20 questions on new material only (ch 16-17).

B. Final Exam- comprehensive, 100 pts (100 multiple choice questions). **YOU MUST TAKE THE FINAL EXAM.**

The final exam will cover chapters 2-17. If you qualify for the shortened final, you will only be tested on new material. You are scored the same as if you took the regular final; for example 18/20 = 98/100, 98% not 90%.

***Total possible pts for lecture:** 300 pts (200 pts lecture exams + 100 pts final exam)

C. To calculate your grade:

Lecture- Add your exam points together and divide by 300, then multiply times 0.67.

Lab- multiply lab grade times 0.33.

*Add those numbers together for your final grade.

D. Grades: A = 89.5-100; B = 79.5-89.4; C = 69.5-79.4; D = 59.5-69.4; F = 59.4 and below

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, completing assignments, preparing for exams, etc.

EXAM DAY: Students are required to provide their own scantron form 882-E and a #2 pencil for each test. A photo ID is required for every examination. Students who arrive unprepared will be deducted points.

IMPORTANT DATES:

Last day to withdraw: Oct 29th by 4:00 pm

Thanksgiving Holiday: Nov 27-28th

Last day of classes: Wed, Dec 3rd

Final Exam: Thursday, Dec 11th, **2:00-4:30**, same room as lecture

MAKE UP EXAMINATIONS: There are no make exams. If you miss a lecture exam, this counts as your dropped exam.

ATTENDANCE POLICY: Attendance is highly recommended, excessive absences can potentially affect your course grade. If you miss class, **YOU** are responsible for obtaining missed information, class notes, etc.

STUDENT WITH DISABILITIES: If you require an accommodation based on disability, I would like to meet with you in the privacy of my office, during the first week of the semester, to make sure you are appropriately accommodated.

AMERICANS WITH DISABILITIES ACT: The university of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation: reference Public Law 93112--The Rehabilitation "Act of 1973 as amended. With the passage of new federal legislation entitled Americans with Disabilities Act - (ADA), pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide "reasonable accommodation" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels.

STUDENT RESPONSIBILITIES:

- A. Familiarize yourself with course syllabus. **YOU** are responsible for this information.
- B. **Memorize your lecture section and your professor's and GTA's names.**
- C. **Write your first and last name on anything you turn in to the instructor.**
- D. Show respect for instructor and fellow students at all times.
- E. Adhere strictly to standards of academic honesty, cheating results in an automatic F in the course.
- F. Attend class regularly, **on time**, and remain the entire class period.

ACADEMIC INTEGRITY: It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University. "Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the 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." (Regents' Rules and Regulations, Series 50101, Section 2.2). All students enrolled in this course 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.

BLACKBOARD: **You are responsible for checking Blackboard on a regular basis.** All class notes, grades and information, including this syllabus can be found on Blackboard. If you have any questions, **please check Blackboard first**, if you still cannot find the information you are looking for, then you may email me. **To access blackboard:** elearn.uta.edu

MAVMAIL: All students are assigned an email account and information about activating and using it is available at www.uta.edu/email. **Students are responsible for checking their email regularly.**

***Email Note:** When emailing me, be sure to **include your entire name, your class and your section**. I will not read the email if this information is not available. Be professional and courteous. You should always address your professors as: Professor or Dr. and include your full name.

STUDENT SUPPORT SERVICES: UTA has established a variety of programs to help students meet the challenges of college life. Support to students includes advising, counseling, mentoring, tutoring, supplemental instruction, and writing assistance. For a complete list of academic support services, visit the Academic Assistance resource page of the Office of Student Success Programs, www.uta.edu/uac/studentsuccess/academic-assistance. To help students address personal, academic and career concerns, individual counseling is also available. For more information, students are encouraged to contact Counseling Services www.counseling.uta.edu at (817) 272-3671 or visit a counselor in 216 Davis Hall or send a message to resources@uta.edu.

SOAR TUTORING: SOAR (Students Obtaining Academic Readiness) is located in 132 Hammond Hall and offers free academic support for qualifying students and low-cost services for all students, including Cost Share Tutoring.

SUPPLEMENTAL INSTRUCTION (SI): SI Leaders are students who sit in your classroom right along with you and provide FREE tutoring for you according to your professor's coursework. Your SI Leader will be introduced to you and provide all of their contact information during the first week of class.

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 syllabi. 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. Classes are held as scheduled during this week and lectures and presentations may be given.

DROP POLICY: Students may drop 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 on the second floor of Davis Hall.

It is the student's responsibility to officially withdraw if they do not plan to attend after registering. *You* are responsible for seeing that all of the proper paperwork is completed and submitted to the appropriate university officials. If this paperwork is not completed, you will receive a letter grade corresponding to your earned grade, including zeros for all missed work. 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. Contact the Financial Aid Office for more information.

As a result of recent legislation passed by the Texas Legislature, any student who enrolls in a public institution of higher education as a first-time freshman in Fall 2007 or later will be limited to six dropped courses during the course of their academic career. This applies to UTA course work and course work completed at other Texas public institutions. In addition, a student can only attempt the same course two times. On the third attempt, the student will be charged the equivalent of out-of-state tuition for the course.

Student Feedback Survey: At the end of each term, students enrolled 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>.

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, which is located out the doors to the left or right. 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.

BOMB THREATS: If anyone is tempted to call in a bomb threat, be aware that UTA will attempt to trace the phone call and prosecute all responsible parties. Every effort will be made to avoid cancellation of presentations/tests caused by bomb threats. Unannounced alternate sites will be available for these classes. Your instructor will make you aware of alternate class sites in the event that your classroom is not available.

AFTER HOURS SAFETY ESCORT: The Sam Mav Escort service provides a service to assist students, faculty, staff and campus visitors to reach their destinations after regular business hours. The hours of service are 7:00 p.m. to 1:00 a.m., Sunday through Saturday. 817-272-3381

LAB INFORMATION: You must complete the online safety training **BEFORE** this lab begins. You must do this once every academic year.

Mandatory Online Safety Training:

1. Go to <http://www.uta.edu/training>.
2. Log on using your network log-on ID and password (what you use to access email). If you do not know your NetID or need to reset your password, visit <https://webapps.uta.edu/oit/selfservice/>.
3. The available courses for completion will be listed under “Training I’m Enrolled In”. Complete the course entitled ‘Student Lab Safety Training – General.’ ***NOTE: If you completed Wet, Dry or Biology Lab Safety Training course last semester for another class, that training is still applicable until the end of this academic year.
4. If you have just completed the training but it is not updated on the ‘Training I’ve Completed’ page, please log out of the system and log back in. If the training still does not show up, call the Helpline at **817-272-5100**.
5. If you were enrolled in a course with a lab last semester and did not complete the training or if you do not see training for this academic year listed, email compliance@uta.edu providing your name, a contact phone number, NetID and course (e.g. BIOL 1441-001) and request the appropriate training for your course.
6. Students who have not completed the training by census date may be dropped from the lab (and consequently the lecture).
7. Lab Safety Training is required to be completed once every academic year. Training completed in the Fall semester is valid for the Fall, Spring and Summer sessions.

For training specific questions, contact the Environmental Health and Safety office at 817-272-2185.

For technical assistance with the training, please contact the Office of Institutional Compliance at 817-272-5100 or email compliance@uta.edu

Notes for Success in Biology 1441:

1. Attend *every* lecture. It is highly unlikely you will succeed in this course if you do not attend lecture. The topics covered in this course build on each other, missing class will quickly put you behind.
2. **Prior** to class, read the chapter which will be covered in lecture.
3. Review your lecture notes after each class. Note topics which require further study or clarification.
4. Work the problems in the back of the chapter. Do the practice problems online at the Mastering Biology website. Do the practice tests available on Blackboard.
5. Spend the necessary amount of time studying. The rule of thumb for succeeding in Biology is **three hours of study for every hour of lecture**. This means that at a minimum you should plan to study nine hours each week, outside of lecture and lab.
6. Don’t procrastinate. These concepts take time to sink in and apply.
7. Check Blackboard and your UTA email on a regular basis.
8. Get organized. Put important dates in your planner today and make a study plan.

Tentative Lecture Schedule:

| | M | Tuesday | W | Thursday | F | | M | Tuesday | W | Thursday | F |
|-----|---|---------|---|----------|---|-----|----------|----------|---|--------------|---|
| Aug | | | | 21 | | Oct | | 21 | | 23 | |
| | | | | syllabus | | | Exam 2 | | | Ch 12 | |
| | | 26 | | 28 | | | 28 | | | 30 | |
| | | Ch 2 | | Ch 3 | | | Ch 12/13 | drop | | Ch 13 | |
| Sep | | 2 | | 4 | | Nov | | 4 | | 6 | |
| | | Ch 3/4 | | Ch 5 | | | Ch 14 | | | Ch 14 | |
| | | 9 | | 11 | | | 11 | | | 13 | |
| | | Ch 5 | | Ch 5/6 | | | Ch 15 | | | Ch 15 | |
| | | 16 | | 18 | | | 18 | | | 20 | |
| | | Ch 6 | | Exam 1 | | | Exam 3 | | | Ch 16 | |
| | | 23 | | 25 | | | 25 | | | 27 | |
| | | Ch 7 | | Ch 7 | | | Ch 16/17 | | | Thanksgiving | |
| | | 30 | | 2 | | | 2 | Last day | | 4 | |
| Oct | | Ch 7/8 | | Ch 8 | | Dec | Ch 17 | | | | |
| | | 7 | | 9 | | | | | | | |
| | | Ch 8/9 | | Ch 9 | | | 9 | | | 2:00 pm 11 | |
| | | 14 | | 16 | | | | | | Final Exam | |
| | | Ch 10 | | Ch 11 | | | | | | | |

This information is going to come at you fast and in more detail than you are accustomed to. These are major differences between high school and college. If you do not study and prepare independently, you will fall behind quickly. Here is what you will be learning...

- Ch 2- chemistry, basic
- Ch 3- water and more chemistry (molarity, etc.)
- Ch 4- functional groups (aka. chemistry)
- Ch 5- 4 major biological molecules and how they make up your entire body! (which is more chemistry)
- Ch 6- cell anatomy
- Ch 7- cell membrane anatomy and physiology
- Ch 8- metabolism (energy transfer and enzymes that love them) We didn't want to leave physics out!
- Ch 9- cellular respiration (how we make ATP, yes there is more chemistry here)
- Ch 10- photosynthesis (how plants make sugars, what no chemistry? Oh wait, there is!)
- Ch 11- cell signaling (how cells talk to each other and function as a whole unit, known as you)
- Ch 12- cell cycle, focus on cell division (mitosis) No chemistry, but here comes math!
- Ch 13- cell division of gametes (fancy word for sperm and eggs)
- Ch 14- genetics, fun with probability! Wait, is that math?!
- Ch 15- extreme genetics, way more fun with probability
- Ch 16- DNA history and replication (learn the real story of DNA controversy!)
- Ch 17- DNA transcription and translation (how we go from 4 DNA bases to the beautiful complex protein sac walking around, known once again as you)

What you can immediately gather from this info, if you bothered to read it, is that there is a lot of chemistry, math and even some physics in this course. No, you are not learning these subjects, you are using the basics from them and applying them to understand and study LIFE! Which is also called *biology*. Are we having fun yet?!