**Biology 1345: Cell & Molecular Biology for Nursing**

Fall 2017 Semester

**Section 003**

**Instructor:** Dr. Corey E. Roelke

**Office Number:** Life Science (LS) 464

**Email Address:** croelke@uta.edu

**Office Hours:** MW 10:00 – 10:50 am, T 9:30 – 10:30 or by appointment

**Time and Place of Class Meetings:** TTH 8:00 – 9:20 am

**COURSE DESCRIPTION:**

This course focuses on the chemical and molecular basis of life, including metabolism, cell structure and function, and genetics to provide knowledge of these subjects for those pursuing a degree in nursing.

**Note: This course cannot be applied for credit toward a degree in Biology**.

Note: Modern Biology is an integrative discipline, incorporating elements of Mathematics, Chemistry, Computer Science, and Writing. We expect that you have at least a basic understanding of each of these elements.

**STUDENT LEARNING OUTCOMES:**

To gain an understanding of the essential details of cell and molecular biology at an introductory level and gain a basic knowledge of the scientific method.

**TEXTBOOK and OTHER REQUIRED MATERIALS**: Biology – OpenStax College. This is a free online textbook. You may download and or print it off the website at <https://openstaxcollege.org/textbooks/biology>.

Students will need an i>clicker 1 or 2: 1498601634 by September 4th. These run from $20-$60 depending on where you buy one and if it is used or new. The UTA bookstore has them in stock. I cannot guarantee the phone app (REEF) will work in the classroom, so please get the handheld clicker. **Please register your i>clicker through the link in Blackboard, NOT** via the internet site.

Students will also need to enroll in the course site with Sapling Biology, University of Texas at Arlington - Biol 1345 003 - Fall17 - Roelke. Access to this website costs $40 and has all homework assignments as well as learning aides available for students. For instructions on how to enroll in the course site, visit: http://cmg.screenstepslive.com/s/MacmillanMedia\_StudentHelp/m/52447/l/596683-student-single-sign-on (**after creating an account, you will have to enroll by going to Blackboard** and clicking on the link under Course Materials that says Sapling homework). You will be able to enroll in the course site a week before the first day of the term. Sapling Learning offers a grace period on payment; for most courses, this is 14 days from the first day of the term. During sign up or throughout the term, **if you have any technical problems**, please fill out the support request form at, <http://www.macmillanlearning.com/Catalog/techsupport> explaining the issue.

**ATTENDANCE POLICY:** As the instructor of this section, I do not take attendance. However, *i-clicker questions are given during class only and are a major component of your grade.* Also, students who attend class regularly almost always perform better on exams than those who do not. If you miss class, **YOU** are responsible for obtaining missed information, class notes, etc. **You cannot make up i-clicker questions** if you miss 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, completing assignments, preparing for exams, etc. This is the foundation for all other Biology classes that you will take, and if you get the basics straight here, it will make your entire degree program easier. Given the fast pace and range of facts and concepts that we cover, this course is pretty much guaranteed to take a lot of time. There is no way to avoid this, and it is essential that you keep up with the material or you will get behind very quickly.

**TENTATIVE LECTURE SCHEDULE:** Timing of exams and material covered is approximate and may be adjusted according to our progress. You will be notified of upcoming exams at least a week in advance. There is no excuse for "not knowing" that an exam is coming up! Come to class regularly and check blackboard regularly.

Chapter 1.........................................................The Study of Life

Chapter 2.........................................................The Chemical Foundation of Life

Chapter 3..........................................................Biological Macromolecules

**Exam #1 – Wed Sept 20**

Chapter 4..........................................................Cell Structure

Chapter 5..........................................................Structure and Function of Plasma Membranes

Chapter 6..........................................................Metabolism

**Exam #2 – Wed Oct 11**

Chapter 7......................................................... Cellular Respiration

Chapter 8......................................................... Photosynthesis (condensed)

Chapter 9..........................................................Cell Communication (condensed)

Chapter 10........................................................Cell Reproduction

**Exam #3 – Mon Oct 30**

Chapter 11.........................................................Meiosis and Sexual Reproduction

Chapter 12.........................................................Mendel’s Experiments and Heredity

Chapter 13.........................................................Modern Understanding of Inheritance

**Exam #4 – Wed Nov 15**

Chapter 14.........................................................DNA Structure and Function

Chapter 15 ………………………………………..Genes and Proteins

**Comprehensive Final Exam - Monday, December 11, 11am-1:30pm**

**IMPORTANT DATES:**

First day of class: August 24

Labor Day Holiday: September 4

Census date: September 11

Last day to drop a class with a “W”: November 1

Thanksgiving Holiday: November 23-24

Last day of class: December 6

Final Exam: **Monday, December 11, 11am-1:30pm**

**GRADING**:

1. Homework- 10% of total grade. Homework problems along with the due dates are found on the sapling biology website listed above.
2. I>clicker questions – 10% of total grade. I-clicker questions are given during lecture class only and will start the week of September 4th. You will receive a minimum of 50% for simply answering all the questions and then will be given additional points for correct answers. Typically there will be 4-8 questions per class. Your lowest 2 i-clicker grades will be dropped. You cannot makeup i>clicker questions.
3. Lecture Exams- the average is 60% of your final grade (each is 40-50 multiple choice questions). *Your lowest lecture exam grade (not the final) out of 4 will be dropped.* **NOTE:** If you receive A's on all four lecture exams, you will take a shortened final exam of 20 questions on new material only (ch 14 & 15).
4. Final Exam- comprehensive, 20% of your final grade (100 multiple choice questions). YOU MUST TAKE THE FINAL EXAM. The final exam will cover chapters 1-15. 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%.
5. Curves- I curve lecture exams up to 70%. For example, if the class average is 65%, everyone gains a 5 point curve. I do not curve the final exam, homework grades, or i-clicker grades.
6. To calculate your grade:
	1. homework average (0.1) + I-clicker average (0.1) + lecture exam average (0.6) + final exam grade (0.2)
7. 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

THERE WILL BE NO EXTRA CREDIT

**EXAM DAY:** Students are required to **provide their own scantron form #4521 (the big blue one)** and a **#2 pencil** for each test. **A photo ID** is required for every examination. Students who arrive unprepared may be deducted points. **If the answer is not marked on your scantron, but is circled on your exam, the answer does not count.** Please make sure you mark your scantron correctly and write your LAST NAME then FIRST NAME with a space in-between. Erasures should be called to the attention of the professor at the time the Scantron is turned in on the exam day. Scantrons are copied immediately after the exam.

**MAKE UP EXAMINATIONS:** There are no make up exams. If you miss a lecture exam, this counts as your dropped exam. If you have a documented excuse (death, hospitalization, something on that scale but not car trouble, traffic or over sleeping) you may replace your missed exam grade with your final exam grade. There are no make up final exams.

**GRADE GRIEVANCE POLICY**: Students have ***one week*** from the time a grade is posted on Blackboard or provided otherwise to dispute the grade. Grades cannot be contested after this deadline has passed. You will be able to view your most recent exam during office hours for two weeks post posting of the grade.

**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.*

**CHEATING IN ANY FORM WILL NOT BE TOLERATED. IF YOU ARE CAUGHT, YOU WILL NOT RECEIVE CREDIT FOR THAT EXAM OR ASSIGNMENT AND MAY BE DISMISSED FROM LECTURE. ALL CASES OF PLAGIARISM OR OTHER CHEATING WILL BE REFERRED TO THE OFFICE OF STUDENT CONDUCT WITHOUT EXCEPTION.**

**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.

**OTHER STUDENT RESPONSIBILITIES:**

A. Familiarize yourself with course syllabus. **YOU** are responsible for this information.
B. Memorize your lecture section and your professor’s name.

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.

**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.

**Grade Replacement Policy**: Students enrolling in a course with the intention of replacing a previous grade earned in the same course must declare their intention to do so at the Registrar's office by Census Date of the semester in which they are enrolled. Grade replacement will not be allowed if the above procedure is not followed.

**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.

**Disability Accommodations: UT** 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), The Americans with Disabilities Amendments Act (ADAAA),* and *Section 504 of the Rehabilitation Act.* 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 disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the **Office for Students with Disabilities (OSD).** Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

**The Office for Students with Disabilities, (OSD)** [www.uta.edu/disability](http://www.uta.edu/disability) or calling 817-272-3364.

**Counseling and Psychological Services, (CAPS)** [www.uta.edu/caps/](http://www.uta.edu/caps/) or calling 817-272-3671.

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](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.

**Non-Discrimination Policy:** *The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit*[*uta.edu/eos*](http://www.uta.edu/hr/eos/index.php)*.*

**Title IX Policy:** The University of Texas at Arlington (“University”) is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated.*For information regarding Title IX, visit* [www.uta.edu/titleIX](http://www.uta.edu/titleIX) or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or [jmhood@uta.edu](file:///C%3A%5CUsers%5Cggann%5CDropbox%5CBIOL%201345%20DB%5CSyllabus%5Cjmhood%40uta.edu).

**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](http://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](http://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.

**The IDEAS Center (**2nd Floor of Central Library) offers **free** tutoring to all students with a focus on transfer students, sophomores, veterans and others undergoing a transition to UT Arlington. To schedule an appointment with a peer tutor or mentor email IDEAS@uta.edu or call (817) 272-6593.

**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 their contact information during the first week of class.

**WRITING CENTER:** The Writing Center, 411 Central Library, offers individual 40 minute sessions to review assignments, *Quick Hits* (5-10 minute quick answers to questions), and workshops on grammar and specific writing projects. Visit https://uta.mywconline.com/ to register and make appointments. For hours, information about the writing workshops we offer, scheduling a classroom visit, and descriptions of the services we offer undergraduates, graduate students, and faculty members, please visit our website at [www.uta.edu/owl/](http://www.uta.edu/owl/).

**Additional services:**

Library Home Page .................................... http://www.uta.edu/library

Subject Guides ........................................... http://libguides.uta.edu

Subject Librarians....................................... <http://www.uta.edu/library/help/subject-librarians.php>

Database List ............................................. http://www.uta.edu/library/databases/index.php Course Reserves........................................ http://pulse.uta.edu/vwebv/enterCourseReserve.do Library Tutorials ......................................... http://www.uta.edu/library/help/tutorials.php Connecting from Off- Campus.................... http://libguides.uta.edu/offcampus

Ask A Librarian .......................................... http://ask.uta.edu

The following URL houses a page where we have gathered many commonly used resources needed by students in online courses: <http://www.uta.edu/library/services/distance.php>.

The subject librarian for your area can work with you to build a customized course page to support your class if you wish. For examples, visit http://libguides.uta.edu/os and http://libguides.uta.edu/pols2311fm . If you have any questions, please feel free to contact Suzanne Beckett, at sbeckett@uta.edu or at 817.272.0923.

**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.

**Campus Carry:** Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit <http://www.uta.edu/news/info/campus-carry/>

**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**

**Emergency Phone Numbers**: In case of an on-campus emergency, call the UT Arlington Police Department at **817-272-3003** (non-campus phone), **2-3003** (campus phone). You may also dial 911.

**Notes for Success in Biology 1345:**

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** that will be covered in lecture. Make **vocabulary** lists.

3. **Review** your lecture notes after each class. Note topics that require further study or clarification.

4. Work the problems in the back of the chapter in addition to the homework problems on the Sapling website.

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.

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.

**This information is going to come at you fast 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.**