# Course ID/Course Name: BIOL 3510, Cell Biology

## Instructor Contact

**Name: Dr. Jessica Moore**

**Office Location: LIFA 128A, within the Biology Advising Office**

**Office Hours: Wednesdays from 1:00-3:00 PM. You may also email for an appointment at another time. The zoom link for virtual office hour is** [**https://unt.zoom.us/j/956811195**](https://unt.zoom.us/j/956811195)

**Note that I will not review exam questions online. You must come to my office and discuss the specifics of your exam in person.**

**Email: Please use the Canvas Inbox to email me whenever possible. However, if you need to add an attachment, email to** **Jessica.Moore3@unt.edu** **I usually answer emails within 1 day, except for on weekends.**

**Communication Expectations:** Canvas will be our primary communication tool for this course. In addition to course materials, there are Discussion Boards set up for questions about each module. Posting on a Discussion Board allows other students to see your questions and my answers, which can be helpful to everyone! Course announcements and due dates will also be posted on Canvas. Please make sure you have not blocked Canvas announcements!

## Course Description

Cells are the smallest unit of life and are capable of performing and coordinating a seemingly endless variety of cellular tasks and functions. In this course, we will review the synthesis and function of macromolecules such as DNA, RNA, and proteins. We will study how cells create and use energy. We will investigate how cells communicate and transport substances both within and across their borders. We will learn about mitosis and the cell cycle and how these processes are controlled. Finally, we will explore tissues and cancer.

Discoveries made by modern cell biologists contribute to our basic understanding of how cells function as well as provide advancements in disease diagnostics and treatment, biotechnology, and agriculture. We will use examples from these different disciplines to learn about cell biology in a real-life context. Mastering the material presented in this course will aid students planning careers in medicine, research, or biotechnology as well as contribute to making them informed citizens in our technologically advanced society.

After completing this course, students will have a deeper understanding of the parts of the cell and how they function. They will be familiar with many methodologies used to study cell biology. In addition to being able to define a variety of terms related to cell biology, students will be able to apply and synthesize concepts learned throughout the semester.

## Course Structure

This is a 16-week online class with fixed dates for exams and assignments due dates. The course content is provided in modules on Canvas that are 1-2 weeks in length. You are expected to study approximately one module per week. Each module requires you to read certain sections of the textbook, watch lecture videos, complete an activity and a graded homework assignment. There will be four exams and a comprehensive final exam. Don’t expect that watching a few lecture videos is enough to learn all the material. ***You MUST read the textbook!*** The lecture videos only help you to focus on the most important topics.

## Course Prerequisites or Other Restrictions

## Intro Bio I and II with a grade of C or better. At least 1 lecture /lab at the 2000 level and Organic Chem I completed.

## Course Objectives

Upon successful completion of this course, you should be able to

1. describe the structure and function of cells and all of their major components
2. visualize and manipulate the structure and function of the major macromolecules responsible for the function and survival of cells
3. diagram the processes of DNA replication, transcription and translation in cells
4. describe how various molecules are transported in and out of cells
5. explain how cells acquire and use energy
6. describe how external and internal signals lead to changes within cells
7. discuss how changes in normal cell biology can lead to cancer

## An image showing the  book cover ofour  cell biology textbook.Materials: **Required** **Textbook**: Albert’s Essentials of Cell Biology, 6th edition.

This book is available for purchase or rental at the UNT bookstore and can also be bought or rented from various local and on-line retailers. Readings from the textbook will be announced and will follow the topic order in the course schedule. In order for you to get the most out of the lecture, it is important that you complete the assigned readings before coming to class since lectures will build on the reading assignment.

## Teaching Philosophy

This is a challenging course. I will provide the information that you need through course materials, including recorded lecture videos. As an online course that does not meet at a specific day and time, it is your responsibility to create your own structure for working with the given material. You must be available on the specific days/times for Exams.

## Technical Requirements & Skills

As an online course you must have reliable access to the internet and Canvas. For exams you will need a non-Safari browser, the Respondus software and a webcam. A microphone is not required but it is useful so you can explain something that may occur during an exam. It will also allow you to participate in office hours and exam reviews.

### Minimum Technology Requirements:

* Computer
* Reliable internet access
* Speakers
* Microphone
* Microsoft Office Suite
* [Canvas Technical Requirements](https://clear.unt.edu/supported-technologies/canvas/requirements) (<https://clear.unt.edu/supported-technologies/canvas/requirements>)

### Netiquette

Netiquette, or online etiquette, refers to the way students are expected to interact with each other and with their instructors online. Here are some general guidelines:

* Treat your instructor and classmates with respect in email or any other communication.
* Always use your professors’ proper title: Dr. or Professor. Please do not address me as Miss or Mrs.
* Unless specifically invited, don’t refer to your instructor by first name.
* Use clear and concise language.
* Remember that all college level communication should have correct spelling and grammar (this includes discussion boards).
* Avoid slang terms such as “wassup?” and texting abbreviations such as “u” instead of “you.”
* Use standard fonts such as Ariel, Calibri or Times new Roman and use a size 10 or 12 point font
* Avoid using the caps lock feature AS IT CAN BE INTERPRETTED AS YELLING.
* Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post and your message might be taken seriously or sound offensive.
* Be careful with personal information (both yours and other’s).
* Do not send confidential information via e-mail

See these [Netiquette Guidelines](http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf) (http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf) for more information.

### Success in an Online Course

The primary difference in succeeding in an online class is that you must create your own structure. Consider setting aside specific days of the weeks and times that you can devote to this class. Make sure you are reading announcements posted on Canvas and be award of all deadlines! Additional tips can be found here “How to Succeed as an Online Student” (https://clear.unt.edu/teaching-resources/online-teaching/succeed-online).

## Getting Help

### Technical Assistance

Part of working in the online environment involves dealing with the inconveniences and frustration that can arise when technology breaks down or does not perform as expected. Here at UNT we have a Student Help Desk that you can contact for help with Canvas or other technology issues.

**UIT Help Desk**: <http://www.unt.edu/helpdesk/index.htm>

**Email**: helpdesk@unt.edu

**Phone**: 940-565-2324

**In Person**: Sage Hall, Room 130

**Walk-In Availability**: 8am-9pm

**Telephone Availability**:

* Sunday: noon-midnight
* Monday-Thursday: 8am-midnight
* Friday: 8am-8pm
* Saturday: 9am-5pm

**Laptop Checkout**: 8am-7pm

For additional support, visit [Canvas Technical Help](https://community.canvaslms.com/docs/DOC-10554-4212710328) (<https://community.canvaslms.com/docs/DOC-10554-4212710328>)

## Course Requirements

Graded components of this course are shown in this table

| **Assignment** | **Points Possible** | **Percentage of Final Grade** |
| --- | --- | --- |
| **Homework Assignments** | 120 points | 22% |
| **Participation Points** |  22 points | 4% |
| **Your 3 highest midterm exams** | 300 points | 55.5% |
| **Final Exam** | 100 points | 18.5% |
| **Total Points Possible** | 542 points | 100% |

**There will be some extra credit points earned throughout the semester. These will be in addition to your 542 points**

## Course Letter Grade

**Final Grades** will be assigned based on the percentage of the total points you earn in the class divided by 5420. *There will be no curving of grades, so do not ask!*.

A = 485-542

B = 431-484

C = 377-430

D = 322-376

F = less than 322

**To calculate your grade: add up your points earned and divide by 542.**.

**EXAMS ARE SCHEDULED FOR THE FOLLOWING DATES**

**WHAT**: **WHEN:**

**Exam 1:** Wednesday, September 10 3:00-4:20 pm or 7:00-8:20 PM

**Exam 2:** Monday, October 6 3:00-4:20 pm or 7:00-8:20 PM

**Exam 3:** Wednesday, October 29 3:00-4:20 pm or 7:00-8:20 PM

**Exam 4**: Wednesday, December 3 3:00-4:20 pm or 7:00-8:20 PM

## **Final Exam Thursday, December 11** 3:00-5:00 pm or 7:00-9:00 PM

## **Course Policies**

### Examination Policy

All exams will be on Canvas using Respondus with a webcam. Exam dates are listed in this syllabus. Everyone will take the exam on the same day, but you may choose either the 3:00PM time slot or the 7:00PM time slot. There will be a Canvas Poll that you complete before exam day to reserve your time slot. Requests for alternate exam dates will only be considered if you have a documented medical illness, military service commitment, UNT athletic event or other UNT approved.

### Assignment Policy

Graded Homework assignments will be on Canvas in the form of Quizzes. They will be graded automatically by Canvas. You will have approximately 5 days to complete a graded homework assignment. No late homework will be accepted unless you have documentation that you were ill or unable to access the homework for the entire 5 days. If you are having technical difficulties with your wifi or canvas, please contact me as soon as possible, preferably before the due date of the assignment!

The University is committed to providing a reliable online course system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will extend the time windows and provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and contact the UNT Student Help Desk: helpdesk@unt.edu or 940.565.2324 and obtain a ticket number. The instructor and the UNT Student Help Desk will work with the student to resolve any issues at the earliest possible time.

Late WorkLate Homework in the form of Quizzes on Canvas will not be accepted.

Attendance PolicyAttendance will not be taken. But there will be opportunities to earn Participation points!

Syllabus Change PolicyThis syllabus, especially the class schedule, may change from what is presented here. You will be notified of any changes as promptly as possible.

## UNT Policies

### Academic Integrity Policy

Students caught cheating on any exam will receive a "0" for that particular exam and will not be able to drop that grade. Additionally, the incident will be reported to the Dean of Students, who may impose further penalty. .According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University. Cheating" includes, but is not limited to: a. use of any unauthorized assistance in taking quizzes, tests, or examinations; b. dependence upon the aid of sources beyond those authorized by the instructor; c. the acquisition, without permission, of tests or other academic material belonging to a faculty or staff member of the university; d. any other act designed to give a student an unfair advantage.

[UNT Policy on Academic Integrity](https://policy.unt.edu/sites/default/files/06.003.AcadIntegrity.Final_.pdf)

*Note: Cheating on online exams will not be tolerated. Any violations of Academic Integrity will be reported for all individuals involved. FYI, I have reported students to the Dean of Students for incidence of Academic Dishonesty.*

### ADA Policy

Please email or attend office hours at the beginning of the semester to discuss what arrangements are needed to maximize your success in this course! A modification of course attendance policy agreement must be completed no later than the second week of classes for those students who have certain accommodations.

UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one’s specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the [ODA website](https://disability.unt.edu/) (https://disability.unt.edu/).

### Emergency Notification & Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Blackboard for contingency plans for covering course materials.

**Transmission and Recording of Student Images in Electronically-Delivered Courses**

1. No permission is needed from a student for his or her image or voice to be transmitted live via videoconference or streaming media, but all students should be informed when courses are to be conducted using either method of delivery.
2. In the event an instructor records student presentations, he or she must obtain permission from the student using a signed release in order to use the recording for future classes in accordance with the Use of Student-Created Work guidelines above.
3. Instructors who video-record their class lectures with the intention of re-using some or all of recordings for future class offerings must notify students on the course syllabus if students' images may appear on video. Instructors are also advised to provide accommodation for students who do not wish to appear in class recordings.

Example: This course employs lecture capture technology to record class sessions. Students may occasionally appear on video. The lecture recordings will be available to you for study purposes and may also be reused in future course offerings.

### No notification is needed if only audio and slide capture is used or if the video only records the instructor's image. However, the instructor is encouraged to let students know the recordings will be available to them for study purposes.

### Acceptable Student Behavior

Student behavior that interferes with an instructor’s ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The University's expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. Visit UNT’s [Code of Student Conduct](https://deanofstudents.unt.edu/conduct) (https://deanofstudents.unt.edu/conduct) to learn more.

### Access to Information - Eagle Connect

Students’ access point for business and academic services at UNT is located at: [my.unt.edu](https://my.unt.edu/). All official communication from the University will be delivered to a student’s Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail [Eagle Connect](https://it.unt.edu/eagleconnect) (https://it.unt.edu/eagleconnect).

### Student Evaluation Administration Dates

Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available during weeks 13, 14 and 15 [insert administration dates] of the long semesters to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via IASystem Notification" ([no-reply@iasystem.org](file:///C%3A%5CUsers%5Cjdl0126%5CAppData%5CLocal%5CTemp%5COneNote%5C16.0%5CNT%5C0%5Cno-reply%40iasystem.org)) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey they will receive a confirmation email that the survey has been submitted. For additional information, please visit the [SPOT website](http://spot.unt.edu/) (http://spot.unt.edu/) or email [spot@unt.edu](file:///C%3A%5CUsers%5Cjdl0126%5CAppData%5CLocal%5CTemp%5COneNote%5C16.0%5CNT%5C0%5Cspot%40unt.edu).

### Sexual Assault Prevention

UNT is committed to providing a safe learning environment free of all forms of sexual misconduct, including sexual harassment sexual assault, domestic violence, dating violence, and stalking. Federal laws (Title IX and the Violence Against Women Act) and UNT policies prohibit discrimination on the basis of sex, and therefore prohibit sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. UNT’s Survivor Advocates can assist a student who has been impacted by violence by filing protective orders, completing crime victim’s compensation applications, contacting professors for absences related to an assault, working with housing to facilitate a room change where appropriate, and connecting students to other resources available both on and off campus. The Survivor Advocates can be reached at [SurvivorAdvocate@unt.edu](file:///C%3A%5CUsers%5Cjdl0126%5CAppData%5CLocal%5CTemp%5COneNote%5C16.0%5CNT%5C0%5CSurvivorAdvocate%40unt.edu) or by calling the Dean of Students Office at 940-565- 2648. Additionally, alleged sexual misconduct can be non-confidentially reported to the Title IX Coordinator at [oeo@unt.edu](file:///C%3A%5CUsers%5Cjdl0126%5CAppData%5CLocal%5CTemp%5COneNote%5C16.0%5CNT%5C0%5Coeo%40unt.edu) or at (940) 565 2759.

### Important Notice for F-1 Students taking Distance Education Courses

**Federal Regulation**

To read detailed Immigration and Customs Enforcement regulations for F-1 students taking online courses, please go to the [Electronic Code of Federal Regulations website](http://www.ecfr.gov/) (<http://www.ecfr.gov/>). The specific portion concerning distance education courses is located at Title 8 CFR 214.2 Paragraph (f)(6)(i)(G).

The paragraph reads:

(G) For F-1 students enrolled in classes for credit or classroom hours, no more than the equivalent of one class or three credits per session, term, semester, trimester, or quarter may be counted toward the full course of study requirement if the class is taken on-line or through distance education and does not require the student's physical attendance for classes, examination or other purposes integral to completion of the class. An on-line or distance education course is a course that is offered principally through the use of television, audio, or computer transmission including open broadcast, closed circuit, cable, microwave, or satellite, audio conferencing, or computer conferencing. If the F-1 student's course of study is in a language study program, no on-line or distance education classes may be considered to count toward a student's full course of study requirement.

**University of North Texas Compliance**

To comply with immigration regulations, an F-1 visa holder within the United States may need to engage in an on-campus experiential component for this course. This component (which must be approved in advance by the instructor) can include activities such as taking an on-campus exam, participating in an on-campus lecture or lab activity, or other on-campus experience integral to the completion of this course.

If such an on-campus activity is required, it is the student’s responsibility to do the following:

(1) Submit a written request to the instructor for an on-campus experiential component within one week of the start of the course.

(2) Ensure that the activity on campus takes place and the instructor documents it in writing with a notice sent to the International Student and Scholar Services Office. ISSS has a form available that you may use for this purpose.

Because the decision may have serious immigration consequences, if an F-1 student is unsure about his or her need to participate in an on-campus experiential component for this course, s/he should contact the UNT International Student and Scholar Services Office (telephone 940-565-2195 or email internationaladvising@unt.edu) to get clarification before the one-week deadline.

### Student Verification

UNT takes measures to protect the integrity of educational credentials awarded to students enrolled in distance education courses by verifying student identity, protecting student privacy, and notifying students of any special meeting times/locations or additional charges associated with student identity verification in distance education courses.

See [UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance Education Courses](https://policy.unt.edu/policy/07-002) (https://policy.unt.edu/policy/07-002).

### Use of Student Work

A student owns the copyright for all work (e.g. software, photographs, reports, presentations, and email postings) he or she creates within a class and the University is not entitled to use any student work without the student’s permission unless all of the following criteria are met:

* The work is used only once.
* The work is not used in its entirety.
* Use of the work does not affect any potential profits from the work.
* The student is not identified.
* The work is identified as student work.

If the use of the work does not meet all of the above criteria, then the University office or department using the work must obtain the student’s written permission.

Download the UNT System Permission, Waiver and Release Form

**Cell Biology Course Schedule, Fall 2025—Tentative Schedule**

This is a tentative topic list of topics for the semester. The Instructor reserves the right to change the schedule as needed. Exam weeks will not be changed. Note: Dates for homework assignments are not yet set. I will update you on these during the semester.

|  |  |  |
| --- | --- | --- |
| **Week** | **Module** | **Complete** |
| 1 | 1. Course Introduction
 | Course Intro Confirmation Quiz |
| 1. Chapter 1, Cells
 | Chapter 1 Practice QuestionsAdd words to your Chapter 1 word list |
| 2 | 2. Chapter 2, Bond Review | Chapter 2 Practice QuestionsAdd words to your Chapter 2 word listHomework 1, due August 25 by 11:59P |
| 3. Chapter 4, Protein Structure | Chapter 4 |
| 3 | 3. Chapter 4, Protein Structure | Chapter 4 Practice QuestionsAdd words to your Chapter 4 word list |
| 3. Chapter 5, DNA structure | Chapter 5 Practice QuestionsAdd words to your Chapter 5 word listHomework 2 due by September 8 11:59PM  |
| 4 | **Exam 1 Chapter 1, 2, 4, 5** | Exam 1  |
| 1. Chapter 7, DNA to Protein
 | Start your Chapter 7 word list |
| 5 | 4. Chapter 7, DNA to Protein | Chapter 7 Practice ProblemsHomework 3 due by September \_\_\_ 11:59 PM |
| 6 | 5. Chapter 11, Membranes | Chapter 11 Practice QuestionsAdd words to your Chapter 11 word list |
| 5. Chapter 12, Membrane transport | Add words to your Chapter 12 word list |
| 7 | 5. Chapter 12, Membrane transport | Chapter 12 Practice QuestionsAdd words to your Chapter 12 word listHomework 4 due by September \_\_\_ 11:59PM |
| **Exam 2 Chapter 7, 11, 12** |  |
| 8 | 6. Chapter 15, Intracellular transport | Chapter 15 Practice QuestionsAdd words to your Chapter 15 word listHomework 5 due by October \_\_\_ 11:59PM |
| 9 | 7. Chapter 3: Review of chemical energy | Chapter 3 & 13 Practice QuestionsAdd words to your Chapter 3 & 13 word listHomework 5 due by October \_\_\_ 11:59PM |
| 7. Chapter 13: Cell energy |
| 10 | 7. Chapter 14, Mitochondria | Chapter 14 Practice QuestionsAdd words to your Chapter 14 word listHomework 6 due by October \_\_\_ 11:59PM |
| 7. Chapter 14, Chloroplasts |
| 11 | **Exam 3 Chapter 14, 3, 13 14** |  |
| 8. Chapter 16, Cell Signaling | Chapter 16 Practice QuestionsAdd words to your Chapter 16 word list |
| 12 | 8. Chapter 17, Cytoskeleton | Chapter 17 Practice QuestionsAdd words to your Chapter 17 word listHomework 7 due by November \_\_\_ 11:59PM |
| 13 | 9. Chapter 18 & 19, Cell Cycle & Cell Division | Chapter 18 & 19 Practice QuestionsAdd words to your Chapter 18 &19 word listHomework 8 due by November \_\_\_ 11:59PM |
| 14 | 10. Chapter 20, Cancer | Chapter 20 Practice QuestionsAdd words to your Chapter 20 word listHomework 9 due by November \_\_\_ 11:59PM |
| 15 | *Thanksgiving Week, no classes* |
|
| 16 | **Exam 4 Chapter 16-20** |  |
| **17** | **FINAL EXAM, all Chapters** |  |