

BIOL 1711.003 Honors Biology for Science Majors I

MW 3:30PM – 4:50PM
CHEM 253

Instructor Information

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Office Hours: TTH 1:30-3PM or by appointment

The syllabus is not a contract and is therefore subject to change in response to unforeseen needs and events.

Course Description:

This is the first part of the two-course sequence for science majors and students who require a biology class that will meet the requirements for Biology majors. The overall focus of the course is an integrated approach to cell and molecular biology with an emphasis on biological chemistry, cell structure and function, Mendelian and molecular genetics, evolutionary biology. The sequence of topics is to provide students with a broad background in biology that serves as a prerequisite and prepare them for higher-level courses.

As an honors course, it is highly recommended that students have completed High school pre-AP/AP biology and chemistry.

Course Objectives

Students should be able to use critical thinking skills in applying biological knowledge to solve problems. Topics include: 1) chemical structure and function as it relates to biology, 2) structure and function of cells and their components, 3) molecular mechanisms of genetics, 4) mechanisms of evolution.

Course Requirements

The recommended text: <https://openstax.org/details/books/biology-2e?Book%20details>

This is a free online text available in different formats. Student resources are included.

Library Webpage: [Introduction - BIOL 1710: Biology for Science Majors I - Guides at University of North Texas \(unt.edu\)](#)

- Materials uploaded onto Canvas for reading supplement lecture content. It is strongly recommended that you read this material as it will be part of the examinations.
- Additional course materials will be made available in Canvas during the semester.
- Supplementary materials and/or readings will be provided through individual learning modules as needed. Students will be expected to use library resources to read current science literature.
- Technology requirements for courses with digital materials:

This course has digital components. To fully participate in this class, students will need internet access to reference content on the Canvas Learning Management System. Students will need

access to webcam and microphone for optional remote delivery of material if in-person classes are not possible due to inclement weather, etc. If circumstances change, you will be informed of other technical needs to access course content. Information on how to be successful in a digital learning environment can be found at [Learn Anywhere](https://online.unt.edu/learn) (<https://online.unt.edu/learn>).

Exams

There will be FIVE exams (four lecture exams and a comprehensive final exam). Exams are worth 100 points each. The lowest lecture exam grade is dropped. The comprehensive final exam grade CANNOT be dropped.

Exams will be based on text readings, class exercises, videos, and class lectures and discussions. Students are responsible for all text material, regardless of whether we review the text material in class or not.

You must be on-time to take an exam.

If you have a University approved absence that conflicts with a scheduled exam, you are responsible for scheduling to take the exam in advance.

There are no make-up exams for this course. If you miss an exam for any reason, it will be your dropped exam.

Grading

The final grade will be the average of the three highest lecture exams and the comprehensive final. That is, SUM (three highest lecture exams + final)/4. Grading will follow a standard scale: 90% is an A, 80% is a B, 70% is a C, and 60% is a D. Federal regulations prohibit discussion of grades via phone or email.

The grade you earn is the grade you will receive. This course is not graded on a curve.

Extra credit opportunities may be available during the semester at the discretion of the instructor. Extra credit, if offered, will be added to the exam sum.

Attendance and Participation Policy

The University attendance policy is in effect for this course. Students are responsible to notify the instructor if they are missing class and for what reason. Research has shown that students who attend class are more likely to be successful.

If a student has a legitimate reason for an absence, this should be communicated with the instructor prior to the absence whenever possible. ***Students are responsible for material covered in the lectures whether or not they attend class.***

You should attend every class unless you have a university excused absence such as active military service, a religious holy day, or an official university function as stated in the Student Attendance and Authorized Absences Policy (PDF) (https://policy.unt.edu/sites/default/files/06.039_StudAttnandAuthAbsence.Pub2_.19.pdf).

Absence for Religious Holidays: (<http://www.unt.edu/catalog/undergrad/enrollment.htm>): A student absent due to the observance of a religious holiday may take examinations/complete assignments scheduled for the day(s) missed within a reasonable time after the absence. Class participants must notify the instructor, in writing, of planned absences for religious holidays by the 12th day of the beginning of the class.

Participation in University Sponsored Activities: such as athletics, debate, musical

organizations, AFROTC, class field trips, etc., must be authorized by the student's academic dean. Within three days after the absence, students must obtain authorized absence cards from the Dean of Students for presentation to their instructors.

Absence for Military Service: In accordance with section 51.9111 of the Texas Education Code, a student is excused from attending classes or engaging in other required activities, including exams, if he or she is called to active military service of a reasonably brief duration. The maximum time for which the student may be excused has been defined by the Texas Higher Education Coordinating Board as "no more than 25 percent of the total number of class meetings or the contact hour equivalent (not including the final examination period) for the specific course or courses in which the student is currently enrolled at the beginning of the period of active military service." The student will be allowed a reasonable time after the absence to complete assignments and take exams. Policies affecting students who withdraw from the University for Military Service are given in the Withdrawal section.

COVID-19 Impact on Attendance: Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. It is important that you communicate with the professor and the instructional team prior to being absent, so you, the professor, and the instructional team can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform the professor and instructional team if you are unable to attend class meetings because you are ill, in mindfulness of the health and safety of everyone in our community.

If you are experiencing any symptoms of COVID-19 (<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider PRIOR to coming to campus. UNT also requires you to contact the UNT COVID Team at COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure.

It is important for all of us to be mindful of the health and safety of everyone in our community, especially given concerns about COVID-19. Please contact me if you are unable to attend class because you are ill, or unable to attend class due to a related issue regarding COVID-19.

Absences due to participation in sponsored activities must be approved in advance by the department chair and academic dean. Within three days after the absence, students must obtain authorized absence cards from the Dean of Students for presentation to their instructors. The only excused absences recognized by the University of North Texas are observation of religious holiday, military service or wherein a student is representing the university in an official capacity such as athletics or band.

According to UNT policy: *"An activity or event is organized and sponsored by the university when it has been planned, funded and properly approved by the appropriate university official".*

Student Attendance and Authorized Absences Policy (PDF)

(https://policy.unt.edu/sites/default/files/06.039_StudAttnandAuthAbsence.Pub2_.19.pdf).

Absence due to medical reasons may be excused but must be documented by a medical professional. Students are also responsible to make up any work covered in class. It is recommended that each student coordinate with a student colleague to obtain a copy of the class notes, if they are absent (this is the only exception to the copyright policy below).

- Only students enrolled in the course are allowed to attend lectures.
- If a student needs to leave the class earlier she/he must talk to the professor before the class; the student should leave the classroom quietly.
- If a student has to leave the class (for example in case of a family emergency or a similar situation) the student must invite the professor politely out of the classroom to explain the situation.

Successful Learning Environment and Conduct in the Classroom

Appropriate behavior is expected of all students taking this course. Student behavior such as showing up late that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is

unacceptable, disruptive and will not be tolerated. Students engaging in unacceptable behavior will be directed to leave the classroom and referred to the Center for Student Rights and Responsibilities.

The value of the diversity of perspectives students bring to our campus is integral to a successful learning environment. The classroom culture relies on open communication, mutual respect, and inclusion of all perspectives. All discussions should be respectful and civil. Although disagreements and debates are encouraged, personal attacks are unacceptable.

Every student in this class should have the right to learn and engage within an environment of respect and courtesy from others. Please review UNT's student code of conduct so that we can all start with the same baseline civility understanding (Code of Student Conduct) (<https://deanofstudents.unt.edu/conduct>). Prohibition of Discrimination, Harassment, and Retaliation (Policy 16.004) The University of North Texas (UNT) prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment policies, procedures, and processes; and university facilities.

The University takes active measures to prevent such conduct and investigates and takes remedial action when appropriate. 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 (Links to an external site.) (<https://deanofstudents.unt.edu/conduct>) to learn more. Student Evaluation Administration Dates Student feedback is important and an essential part of participation in this course.

ADA Accommodation

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time; however, ODA notices of reasonable 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 reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the Office of Disability Access website (<http://www.unt.edu/oda>). You may also contact ODA by phone at (940) 565-4323. A student needing accommodation can connect with the Office of Disability Access to begin the registering process (<https://studentaffairs.unt.edu/office-disability-access>).

Academic Integrity

There is a **zero tolerance** policy in this course for violations of the Academic Integrity Policy.

Academic misconduct will automatically result in a failing grade.

The Department of Biological Sciences adheres to and enforces UNT's policy on academic integrity (cheating, plagiarism, forgery, fabrication, facilitating academic dishonesty and sabotage). Academic misconduct also includes the unacknowledged use of materials prepared by another person or agency in the distribution of academic materials. According to University policy, if you become aware of any misconduct related to academic integrity, you should inform me or another proper authority such as the

department chair or associate dean. Failure to do so is considered academic misconduct. Students in this class should review the policy (UNT Policy Manual Section 18.1.16), online at http://policy.unt.edu/sites/default/files/untpolicy/pdf/7-Student_Affairs-Academic_Integrity.pdf. Violations of academic integrity in this course will be addressed in compliance with the penalties and procedures laid out in this policy.

Other Policies and Information

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 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) 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 (Links to an external site.) (<http://spot.unt.edu/>) or email spot@unt.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 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 or at (940) 565 2759.

UNT Copyright Compliance Policy (16.13.3)

Copyright Infringement: Anyone who makes unauthorized use of copyrighted material in a manner that violates the copyright owner's exclusive rights (except for narrowly defined exemptions) is committing copyright infringement and may be subject to civil and criminal penalties as well as disciplinary action by UNT. All materials generated for this course, which include but are not limited to syllabi, lectures and notes, quizzes, exams, in-class materials, review sheets, etc... are protected by copyright law. You do not have the right to copy and distribute the any course materials. You are authorized to take notes in class thereby creating a derivative work from my lecture, the authorization extends only to making one set of notes for your personal use and no other. You are not authorized to record lectures, to provide your notes to anyone else or to make any commercial use of them.

Anti-Piracy Warning: The unauthorized reproduction or distribution of copyrighted work is illegal. Criminal copyright infringement, including infringement without monetary gain, is investigated by the FBI and is punishable by up to five years in federal prison and a fine of \$250,000

- Unauthorized duplication, distribution or use of classroom training materials such as textbooks, PowerPoint presentations and any other learning materials provided.
- Unauthorized duplication, distribution or use of online training content, including computer software, online courses, skills assessments, sound or video recordings, training data and reports.
- Unauthorized duplication, distribution or use of web site content, including -authored articles and case histories, sound or video recordings, photos and graphics, etc.

1. Chemistry and Cells. Chapters 1-5

Week	Date	Learning Objectives
W1	Monday, August 21, 2023	A. Know how the hierarchy of living organisms and themes of the text organize the conceptual framework for understanding biology. B. Understand how chemicals form bonds and the structural/functional characteristics of important biological molecules. C. Know how organization of cellular components determines cellular function
	Wednesday, August 23, 2023	
W2	Monday, August 28, 2023	
	Wednesday, August 30, 2023	
W3	Monday, September 4, 2023 (No Class, Labor Day Holiday)	
	Wednesday, September 6, 2023	
W4	Monday, September 11, 2023	
	Wednesday, September 13, 2023	Exam 1

2. Metabolism, Cell Communication and Reproduction. Chapters 6-10

Week	Date	Learning Objectives
W5	Monday, September 18, 2023	A. Know how organization of cellular components determines cellular function. B. Understand how animals convert energy of chemical bonds into different kinds of energy and understand how plants convert light energy into chemical bond energy. C. Understand how cells communicate. D. Understand the stages and events of the life cycle and division of somatic and reproductive cells.
	Wednesday, September 20, 2023	
W6	Monday, September 25, 2023	
	Wednesday, September 27, 2023	
W7	Monday, October 2, 2023	
	Wednesday, October 4, 2023	Exam 2

3. Genetics. Chapters 11-15

Week	Date	Learning Objectives
		GROUP ASSIGNMENTS AND HALLOWEEN PROJECT
W8	Monday, October 9, 2023	A. Understand the molecular basis of inheritance and the relationship and roles of genes and chromosomes.
	Wednesday, October 11, 2023	
W9	Monday, October 16, 2023	
	Wednesday, October 18, 2023	
W10	Monday, October 23, 2023	
	Wednesday, October 25, 2023	GROUP PRESENTATIONS
W11	Monday, October 30, 2023	Exam 3

4. Mechanisms of Gene Expression and Genomes. Chapters 16-20

Week	Date	Learning Objectives
W11		A. Understand how the sequence of nucleotides in a gene is converted into a sequence of amino acids to make a protein. B. Understand the genetic basis of evolution.
	Wednesday, November 1, 2023	
W12	Monday, November 6, 2023	
	Wednesday, November 8, 2023	
W13	Monday, November 13, 2023	
	Wednesday, November 15, 2023	
W14	Monday, November 20, 2023	No Class Fall Break
	Wednesday, November 22, 2023	
W15	Monday, November 27, 2023	Exam 4

4. Mechanisms of Gene Expression and Genomes. Chapters 16-20

Week	Date	Learning Objectives
W15	Wednesday, November 29, 2023	Overflow and wrap-up
W16	Monday, December 4, 2023	
	Wednesday, December 6, 2023	Review for final exam
W17	Finals Week	To Be Scheduled

*** Visit the UNT Learning Center**

The UNT Learning Center provides a variety of free academic support programs from tutoring and supplemental-instruction services to academic skills workshops and coaching. **Contact Information:** Phone: 940-369-7006 | Email: Learning.Center@unt.edu | In-person: Monday through Friday, from 8 a.m.-5 p.m., Sage Hall, Room 170. For more information about the services provided, visit the LC online: learningcenter.unt.edu.