

BIOL 1132.003: Environmental Science

Spring 2026

Welcome to Environmental Science! This topic investigates scientific and social aspects of human impacts on living organisms and the world around us. We will take an interdisciplinary approach to understand the environment and how it is affected by human society. Studying the environment is an exciting endeavor. This course attempts to move from confrontation to cooperative problem-solving, and place the study of the environment on a sound scientific basis. I hope you will be fascinated by what you learn this semester!

Instructor: Dr. Elinor Lichtenberg

Office Hours: By appointment. Please do not hesitate to schedule a time to ask for clarification, find support with understanding class material, or discuss any concerns you have! Zoom meetings will use the link in Canvas.

E-mail: elichten@unt.edu, (940) 891-6956

Communication: Check for Canvas announcements at least once per week. I also maintain a **FAQ page** in Canvas. For the quickest answer, please check it before contacting me. Expect a response within 2 business days (i.e., not weekends); do not count on a quick response. If you have a time-sensitive problem (e.g., technical issue), start the subject with "URGENT". Failure to study until the day before the exam is not a time-sensitive problem.

For all communication, including among students, I expect you to follow the [Code of Student Conduct](#), UNT's [Online Communication Tips](#), and the Rules of Engagement below to keep interactions inclusive of and useful for everyone. As members of the UNT community, we have all made a commitment to be part of an institution that respects and values the identities of the students and employees with whom we interact. UNT does not tolerate identity-based discrimination, harassment, or retaliation. UNT's full Non-Discrimination Policy can be found in the UNT Policies section of the syllabus.

Course Format and Structure

The lecture for this course is online and asynchronous. (The lab is in person.) Lecture will consist of 15 modules: one per week. Each Canvas module will open on Tuesday morning. It will include assigned textbook readings through McGraw Hill Connect, pre-recorded lectures, short review quizzes, and lecture activities through Connect. Some weeks there will be a homework assignment or an exam. Textbook review, quizzes, assignments, and exams will be available only on specific days. See the Course Requirements and Tentative Schedule below for details.

Course Prerequisites or Other Restrictions

There are no required prerequisites for this course but please realize it cannot be used as credit for any classes for a biology major or minor. It does fulfil a core requirement for a laboratory science.

How to Succeed in this Course

Although this class is not part of your major, please complete assignments on time and do not procrastinate. It is easy to ignore online materials and quizzes until the last minute. You are given plenty

of freedom as to when you work on this course. Please make sure you don't fall behind. Each quiz and assignment has a strict deadline, and if you do not keep up you will not be able to get those points. The quizzes are designed to help you review course material, so you can learn better and do well on exams.

Read assigned textbook chapters *before* watching lecture videos. Lecture material builds on textbook reading, and does not just repeat it.

Also see this resource on [How to Succeed as an Online Student](#).

Course Objectives (COs)

By the end of this course, students will be able to:

- CO1. Explain relationships among energy, matter, and the environment.
- CO2. Explain our major impacts on our planet and describe ways to alleviate these.
- CO3. Discuss how human activities and policies affect natural resources, ecological communities, and the environment.
- CO4. Describe interactions between organisms and their environments.
- CO5. Describe the scientific method and its underlying concepts and principles.
- CO6. Confidently interpret data and graphs.

Materials & Technical Requirements

- *Environmental Science* by Eldon Enger and Bradley Smith, with McGraw-Hill Connect access code
- Computer or other device that enables you to use Canvas and McGraw Hill Connect (via Canvas).
- Internet access sufficient to watch or download recorded lectures, do on-line quizzes and exams, and do McGraw Hill Connect activities.

If you are unable to obtain the above materials, you will not be able to continue in the class.

Technical Assistance

Inconveniences and frustration that can arise when technology breaks down or does not perform as expected. UNT has a [Help Desk](#) that you can contact for help with Canvas or other technology issues. They provide support in person (Sage Hall Room 330), on the phone (940-565-2324), via e-mail (helpdesk@unt.edu), and via live chat on their website.

For additional support, visit [Canvas Technical Help](#).

Rules of Engagement

Students are expected to interact with each other and instructors following these general guidelines:

- While the freedom to express yourself is a fundamental human right, any communication that uses cruel and derogatory language on the basis 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 will not be tolerated.
- Treat your instructor and classmates with respect in any communication online or face-to-face, even when their opinion differs from your own.
- Ask for and use the correct name and pronouns for your instructor and classmates.

- Speak from personal experiences. Use “I” statements to share thoughts and feelings. Try not to speak on behalf of groups or other individual’s experiences.
- Use your critical thinking skills to challenge other people’s ideas, instead of attacking individuals.
- Avoid using all caps while communicating digitally. This may be interpreted as “YELLING!”
- Be cautious when using humor or sarcasm in emails or discussion posts as tone can be difficult to interpret digitally.
- Avoid using “text-talk” unless explicitly permitted by your instructor.
- Proofread and fact-check your sources.
- Keep in mind that online posts can be permanent, so think before you type.

Course Requirements

This course is designed to help you asynchronously engage with course material. Assignments confirm that you understand the material and practice what you are learning. Assessments will be completed and turned in through Canvas and run through Turnitin and AI checking. Quizzes and assignments are designed for you to check whether you understand the material, and to help you prepare for exams. **Cheating hurts mainly yourself.**

- **Lecture** – Lecture material will be presented through a combination of videos, readings, and activities. Lectures do not simply repeat the textbook. They clarify topics that the book covers, and talk about some things that are not in the book including more tips for how to help the environment. *The time required for lecture material each week is equivalent to attending lecture for an in-person class.* Each week’s lecture materials will become available at the start of the relevant week. Lectures for this class include the following elements.
 - **Lecture videos** – Lecture material is presented mainly through a series of short videos recorded by Dr. Lichtenberg and guest presenters, or from online sources.
 - **In-lecture readings** – Some lectures additionally require you to read a short article, listen to a radio clip (or read the transcript), etc. These demonstrate current environmental science research.
 - **In-lecture Connect activities (graded)** – You are required to complete interactive activities in Connect throughout the semester. These activities will be part of a week’s lecture time. They let you apply the material you are learning. You will find these activities in the module for the week they are assigned. Each activity will be available through 11:59pm on the Monday at the end of the week it is assigned. I will exclude your 1 lowest lecture activity score from your final grade.
 - **Quizzes (graded)** – After reading the textbook and watching the lecture videos each week, you will take a short quiz in Canvas. These are designed for you to reflect on and make sure you understood the material. Quizzes are open note and open book, but I expect you to take these by yourself. You will be able to re-take each quiz one time before its due date. Each quiz will be available through 11:59pm on the Monday at the end of the week it is assigned. Your lowest 2 quiz grades will be excluded from your final grade.
- **Homework**
 - **Textbook readings and optional SmartBook questions** – You are expected to read the assigned textbook chapters before watching lecture videos. For each textbook chapter, you also have the *option* to answer SmartBook questions in Connect. These questions help make sure you

understand course material. They also provide good review for quizzes and exams. You will find links to the textbook chapters within weekly modules. SmartBook questions are not graded.

- **Introductions assignment (graded)** – Details will be provided in Canvas. This has portions due the second and third weeks of class. It cannot be turned in late or made up.
- **Environmental Encounters (graded)** – This is an opportunity to practice what you are learning in class, and apply it to your life. See Canvas for details. You will submit four Environmental Encounters over the course of the semester, through Canvas and using Turnitin. You can submit them at any point before their due date (11:59pm on a Monday). I suggest you submit these assignments early, in case you have a busy week, get sick, etc. on the week they are due. Your lowest 1 Environmental Encounter grade will be excluded from your final grade. You must write these assignments yourself. Copying, letting someone copy your work, or using AI such as ChatGPT violates the Academic Integrity Policy (see below), and will result in a score of 0.
- **Exams (graded)** – There will be three non-cumulative exams. Only your highest 2 exam scores will count towards your final grade. Exams include information from lectures, the textbook, and assigned activities. They will be administered through Canvas. You will have 1 attempt and 60 minutes to complete each exam. You are allowed to use course materials when taking exams, including the textbook and your notes. However, if you rely too much on those materials you will not have time to finish the exam. You should not discuss the questions or your answers with other students on the day of the exam, search sites like Google or ChatGPT for answers, or use sites like Chegg. Doing so violates the Academic Integrity Policy, and will result in a score of 0 on the exam.

Grading

There are 1000 points possible in this class. You need to have passing grades in both the lecture and lab portions in order to pass this class. Grades will be assigned as follows:

A = 900-1000
 B = 800-899.99
 C = 700-799.99
 D = 600-699.99
 F = Less than 600

Assignment Category (# assigned)	Points contributing to final grade	# excluded from final grade	When due
Connect orientation	10	0	1 st week of class
Course overview quiz	10	0	1 st week of class
Introductions homework	30	0	See Schedule
Quizzes (12) – 20 points each	200	2	Mondays, 11:59pm
Lecture activities (5) – 25 points each	100	1	Mondays, 11:59pm
Environmental Encounters (4) – 50 points each	150	1	See Schedule
Exams (3) – 100 points each Available 8am - 11:59pm	200	1	Exam 1: 2/23 Exam 2: 4/6

Assignment Category (# assigned)	Points contributing to final grade	# excluded from final grade	When due
			Final: 5/6
Lab score	300	0	See lab syllabus
Total	1000		

Late and Makeup Policy

Late work is *not* accepted, and there will be no makeup assignments. I exclude your lowest 1-2 scores in most categories. Thus, flexibility to miss an assignment is built into the course structure.

Assignments and Quizzes are due Mondays at 11:59pm. Exams will be available for you to take between 8am and 11:59pm on the specified day. You will have 60 minutes to complete the exam. Please make sure you begin it with sufficient time to finish before 11:59pm.

Tentative Schedule

Topics and assignments are subject to change at instructor's discretion. Exam dates will not change. Students are responsible for knowing all deadlines and exam dates.

Week (Monday date)	Lecture Topics	Book Chapters	Due Monday of the following week by 11:59pm
1 (1/12)	Course overview & expectations What is environmental science?	1	Connect orientation Course overview quiz Week 1 quiz
2 (1/19)	What is science? Matter and Energy	4	Introductions homework Week 2 quiz
3 (1/26)	Interactions: Environments and Organisms	5	Introductions responses Week 3 quiz
4 (2/2)	Kinds of Ecosystems and Communities Populations	6, 7	Environmental Encounter 1 Week 4 quiz
5 (2/9)	Water	15	Week 5 quiz
6 (2/16)	Exam 1 (2/23)		
7 (2/23)	Land Use	12	Environmental Encounter 2 Week 7 quiz
8 (3/2)	Soil	13	Week 8 quiz (due after Spring Break)
Spring Break (3/9)			
9 (3/16)	Agriculture	14	Week 9 quiz
10 (3/23)	Biodiversity Issues	8	Week 10 quiz
11 (3/30)	Exam 2 (4/6)		Environmental Encounter 3
12 (4/6)	Climate Change	17	Week 12 quiz
13 (4/13)	Energy	9, 11	Week 13 quiz
14 (4/20)	Waste	18	Week 14 quiz
15 (4/27)	Environmental Economics	3	Environmental Encounter 4
Finals week (5/4)	Exam 3 (5/6)		

Course Evaluation

Student Perceptions of Teaching (SPOT) is the student evaluation system for UNT and allows students the ability to confidentially provide constructive feedback to their instructor and department to improve the quality of student experiences in the course. SPOT evaluations will be April 14 – 30.

Course Policies

Attendance and Participation

Students are expected to attend class by engaging with online course materials every week. This includes reading assigned textbook chapters, watching lecture videos, and completing all assignments, quizzes, and exams. It is important that you communicate with Dr. Lichtenberg prior to being absent to mitigate the impact of the absence on your attainment of course learning goals. You are also strongly encouraged to contact Dr. Lichtenberg when you have questions about course material.

Examination Policy

You are allowed to use course materials, including the textbook and your notes, during exams. However, if you rely too much on those materials you will not have time to finish the exam. You should not discuss the questions or your answers with other students on the day of the exam, Google answers, or use sites like Chegg. Doing so violates the Academic Integrity Policy, and will result in a score of 0 on the exam.

If you miss an exam or are unhappy with your score, you can take the optional, non-cumulative final exam. The final exam score will replace a missed exam, or a lower exam grade.

In the event you lose electricity or Internet during an exam, or have a technical problem, immediately document the issue (e.g., screenshot of error message or outage notice) and contact the Student Helpdesk (helpdesk@unt.edu or 940.565.2324) and record your remedy ticket number. Contact the instructor as soon as you are able, including a description of the issue, documentation, and your Helpdesk ticket number.

Assignment Policy

Deadlines are listed in the tentative schedule, and will be posted on Canvas. All quizzes, lecture activities, and homework are due Mondays at 11:59pm, and must be turned in via Canvas.

Environmental Encounters can be turned in as text entered into Canvas or by uploading a typed document. I will run them through Turnitin.

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.

UNT Policies

All policies are available on the [Student Support Services & Policies](#) page.

Academic Integrity Policy

Academic Integrity Standards and Consequences. 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.

Examples where no credit will be given for the assignment include:

- Discussing a quiz with one or more classmates before all of you have completed it.
- Copying other work from a classmate, or letting a classmate copy your work.
- Copying text from an article or the textbook without quoting and citing.
- Citing non-existent sources.
- Using generative AI such as ChatGPT on assignments.

Examples where a student will be reported to the Office of Academic Integrity are:

- Completing a quiz, homework, or other assignment for another student.
- Committing any of the above types of academic dishonesty more than one time.

This list is not exhaustive.

ADA Policy

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](http://www.unt.edu/oda) website (<http://www.unt.edu/oda>). You may also contact ODA by phone at (940) 565-4323.

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.

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 Canvas for contingency plans for covering course materials.

Retention of Student Records

Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Canvas online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student's records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University's policy. See UNT Policy 10.10, Records Management and Retention for additional information.

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. 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 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](http://spot.unt.edu/) (<http://spot.unt.edu/>) or email spot@unt.edu.

Survivor Advocacy

UNT is committed to providing a safe learning environment free of all forms of sexual misconduct. Federal laws and UNT policies prohibit discrimination on the basis of sex as well as 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. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean of Students Office at 940-5652648.

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.

ACADEMIC SUPPORT & STUDENT SERVICES

Student Support Services

Mental Health: UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or its severity. Listed below are several resources on campus that can support your academic success and mental well-being:

- [Student Health and Wellness Center](https://studentaffairs.unt.edu/student-health-and-wellness-center) (<https://studentaffairs.unt.edu/student-health-and-wellness-center>)
- [Counseling and Testing Services](https://studentaffairs.unt.edu/counseling-and-testing-services) (<https://studentaffairs.unt.edu/counseling-and-testing-services>)
- [UNT Care Team](https://studentaffairs.unt.edu/care) (<https://studentaffairs.unt.edu/care>)
- [UNT Psychiatric Services](https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry) (<https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry>)

Chosen Names: A chosen name is a name that a person goes by that may or may not match their legal name. If you have a chosen name that is different from your legal name and would like that to be used in class, please let the instructor know. Below is a list of resources for updating your chosen name at UNT.

- [UNT Records](#)
- [UNT ID Card](#)
- [Legal Name](#)

*UNT euids cannot be changed at this time. The collaborating offices are working on a process to make this option accessible to UNT community members.

Pronouns: Pronouns (she/her, they/them, he/him, etc.) are a public way for people to address you, much like your name, and can be shared with a name when making an introduction, both virtually and in-person. Just as we ask and don't assume someone's name, we should also ask and not assume someone's pronouns.

You can [add your pronouns to your Canvas account](#) so that they follow your name when posting to discussion boards, submitting assignments, etc.

Below is a list of additional resources regarding pronouns and their usage:

- [What are pronouns and why are they important?](#)
- [How do I use pronouns?](#)
- [How do I share my pronouns?](#)
- [How do I ask for another person's pronouns?](#)
- [How do I correct myself or others when the wrong pronoun is used?](#)

Additional Student Support Services

- [Registrar](#) (<https://registrar.unt.edu>)
- [Financial Aid](#) (<https://financialaid.unt.edu/>)
- [Student Legal Services](#) (<https://studentaffairs.unt.edu/student-legal-services>)
- [Career Center](#) (<https://studentaffairs.unt.edu/career-center>)
- [Center for Belonging and Engagement](#) (<https://studentaffairs.unt.edu/center-for-belonging-and-engagement/index.html>)
- [Counseling and Testing Services](#) (<https://studentaffairs.unt.edu/counseling-and-testing-services>): provides counseling services to the UNT community, as well as testing services; such as admissions testing, computer-based testing, career testing, and other tests.
- [UNT Food Pantry](#) (<https://studentaffairs.unt.edu/desresources/programs/food-pantry/index.html>)

Academic Support Services

- [Academic Success Center](#) (<https://success.unt.edu/asc>): information regarding how to be a successful student at UNT
- [Office of Disability Access](#): exists to prevent discrimination based on disability and to help students reach a higher level of independence
- [UNT Learning Center](#): provides a variety of services, including tutoring, to enhance the student academic experience; now has a school supply pantry
- [UNT Libraries](#) (<https://library.unt.edu/>)
- [Writing Lab](#) (<http://writingcenter.unt.edu/>): offers free writing tutoring to all UNT students, undergraduate and graduate, including online tutoring