course syllabus

BIOL 1132.004: ENVIRONMENTAL SCIENCE
FALL 2026

Lecture: WH 217, Tuesdays and Thursdays, 3:55 – 5:15 pm
Lab: based upon your individual schedule

1. **Instructor:**

Dr. Jim Bednarz
Office: LIFE A128-C
Office hours: Mon 2:00 – 3:00 pm, Tues 1:00 – 2:30 pm, Thur 2:00 – 3:30 pm, or make appointment.
Phone: 940-369-5142 e-mail: james.bednarz@unt.edu (best way to contact me)

2. **Office Hours:** If possible, please send me a brief e-mail before you intend to visit during my office hours and give me the specific time of your planned visit and if you want to visit in-person or by Zoom. I will respond by e-mail verifying that I am available or suggest an alternative time, as well as verify whether the meeting will be in-person or virtual. **I do encourage you to visit during my office hours to ask questions or discuss environmental science.**

3**. Text:**

Required:

1. Enger, E.D., and B.F. Smith. 2025. Environmental Science: A Study of Interrelationships. 2025 Release Edition, McGraw-Hill Education, New York, NY (ISBN: 978-1-266-66320-8). With access to Connect Plus (connect.mheducation.com).
2. Thomas, V. 2024. Risk and resilience in the era of climate change. 2nd Ed. (ISBN-13: 978-9819727698)

. **CANVAS: Course information on CANVAS: https://unt.instructure.com/login/ldap**

5. **Objective:**

To provide students with a current introduction to environmental science as a complex, interdisciplinary, scientific area of study. Studying the environment is an exciting endeavor and this course attempts to move from confrontation to cooperative problem-solving and place the study of the environment on a sound scientific basis. The enthusiasts of the 1960s and 1970s have matured into today's environmental professionals: applied scientists who work on projects to understand cause and effect relationships, executives in alternative energy corporations, economists who calculate cost and benefits of pollution controls, environmental lawyers who mediate problems and help write laws to promote sustainable use of our resources, engineers who develop new technologies with less environmental impact, and other experts in many related fields. The focus of this course and its associated laboratory, drawing from the knowledge generated by environmental professionals, will be on ecological and scientific principles basic to understanding environmental issues. The major themes that students will carefully examine include critical scientific thought, pollution, human population, sustainability, climate change, biodiversity and the linkage of the environment to human society. Students from all disciplines should find this course informative and interesting, and will find that they more fully understand the ramifications of governmental, industrial, and individual decisions on our world. Satisfies the University's core science requirement.

6. **Flexibility Statement:**

This syllabus provides a plan for the execution of this course; however, because of potential unforeseen events or opportunities, the instructor reserves the right make some reasonable adjustments in the schedule of topics, the material covered, or other aspects of this course. Students will be notified of any such adjustments well in advance.

7. **Course grade:**

A. Scale:

90 - 100% = A	60 - 69% = D
80 - 89% = B	< 60% = F
70 - 79% = C	

B. Components of grade: There will be three (3) exams, each of equal weight and several homework exercises. Exams are to be taken in-person when scheduled. You will not be allowed to take any exam on a date and time other than that scheduled unless you have a verifiable medical emergency or official school activity. Missed exams for other reasons will result in a zero (0) score for each missed exam. If you miss the make-up exam, you will receive a zero (0) for that examination. Authorized make-up exams will be scheduled at mutually convenient dates and times for both the student and instructor. **The instructor has the option of choosing a different test format for make-up examinations (e.g., fill-in the blanks or short answer).** Participation points can only be made up for university sanctioned absences or medical reasons (requires doctor's explanation). The final exam may have a few questions from subject matter covered for earlier exams, but emphasis on the final will be placed on new material.

Final grade will be based on:

1.	Exams	30%
2.	Laboratory Grade	30%
3.	Assignments	30%
4.	iClicker Participation Points	10%

Note: The lab is worth 30% of your final overall grade for the course. However, students must pass both the lecture and the lab independently to pass the course (i.e., if you fail the lab or the lecture, you automatically fail the entire course).

The lowest regular (100 pt) exam score will be dropped for students that have no more than 2 unexcused absences. All three 100-pt exams will contribute to the final grade for students that have more than 2 unexcused absences. All students are required to take all 3 exams (i.e., I will drop the score of the final exam if it is your lowest grade, you met the attendance requirements [above], and if you take that exam).

The **final exam** is scheduled for: **Monday, 7 December 2026, 3:30 PM**

8. **iClicker Cloud POLLING:** Engagement, participation, and interaction are important elements of the learning process. To that end, we will be using iClicker Cloud Polling, so each student must be registered to iClicker Cloud and have a device (computer, smartphone or tablet) for polling responses in this course.

You may use your own smartphone or tablet by downloading the iClicker Cloud app – available for iOS and Android.

1) You will need to download the iClicker Cloud App on your device from the App store.

2) You will need to create an account with iClicker Cloud, enter your EUID (your CANVAS login ID) in the *Student ID (optional)* space, select University of North Texas as your institution, and search for each course in which you will use iClicker Cloud. Visit: https://www.iclicker.com/

This course is listed as follows: FA26 BIOL 1132.004 - Bednarz

Add this course to your iClicker Cloud course list. Click on the course and JOIN when we are in session. Connecting via wifi is a must.

Grading: You will receive 1 point for each answer recorded (participation) and an additional 1 point for each correct answer for a total of 2 points possible per question. Responses to questions posed for which there is no right or wrong answer will receive 1 point for participation. Therefore, you are **receiving credit for participating** and **additional credit for answering correctly**. You are not permitted to participate in polling if you are not present in class, without the expressed permission of the instructor. Attempts to participate in polling when absent from class are acts of **academic dishonesty** and any student involved in this form of academic misconduct will receive **zero out of 100 percentage points** for their course polling grade.

9. **Policy on Attendance:**

To learn the material, it will benefit you greatly to attend class, because most of us learn through multiple modalities: visual, tactile and auditory. When you attend class, you have the benefit of seeing, writing, and hearing the material, as well as the ability to ask questions and hear your peers ask questions. Please note that I will take attendance and monitor your participation. If you do not attend class, you are still responsible for all material covered during that class meeting and you will receive a zero (0) for missed participation points (answering iClicker Polling questions), or any missed assignment. Make-up exams will only be allowed for valid medical reasons or official school activities, in which case a verifiable written excuse is required. Students who have a valid reason for missing an exam may PRE-ARRANGE (before the exam) a date for taking the make-up exam. If a student misses an exam without making arrangements prior to the exam date, or misses the arranged make-up exam, the student will receive a zero grade for that exam. **The instructor has the option of choosing a different test format for the make-up exam.** If you are sick or in quarantine during an exam date, I will re-schedule your exam in-person when you are well.

Students are expected to attend class meetings regularly and to abide by the attendance policy described above. **If you have more than 2 unexcused absences, you are not eligible to drop your lowest regular exam score.** It is important that you communicate with me, the professor, prior to being absent, so that we can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform me by e-mail 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, 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.

10. Face Covering and Vaccinations:

UNT and I as a man of science strongly encourage everyone to get the Covid-19 vaccine and boosters for your personal safety and that of your friends and family. Also, UNT and I strongly encourage everyone that is immunocompromised or just wanting extra protection from infections to wear a face covering when in class.

11. **Policy on Incompletes:**

An incomplete (I), is a non-punitive grade, given only during the **last one-fourth of a semester** and only if a student is (1) passing the course; (2) has a **justifiable and documented reason** why the class cannot be completed on schedule; and (3) arranges with the instructor to finish the course at a later date by completing specific requirements that the instructor must list on the grade form turned in at the end of the semester. **All work must be completed within the time specified by the instructor (not to exceed one year after taking the course).**

12. **Disability Accommodation:**

The University of North Texas complies with Section 504 of the 1973 Rehabilitation Act and with the Americans with Disabilities Act of 1990. If you have a verified disability, please contact me at your earliest convenience so that we can discuss your needs. I will assure that accommodations are made so that you are provided equality in your educational experience in my class.

13. **Important Dates:**

a) Last day to drop a course section to no longer appear on the official transcript and to receive a full refund for the course section. August 28, 2026.
b) The last day to notify instructors in writing of any planned absences for religious holidays. The 12th day of class, September 1, 2026.
c) The last date students can drop a course with the grade of W. November 6, 2026.

14. **Policy on Scholastic Dishonesty:**

Scholastic dishonesty will not be tolerated. Students who are found to have committed scholastic dishonesty (all forms, including but not limited to cheating on an exam or copying homework from another student, using another student's polling account, or plagiarism) will fail this course. The term 'plagiarism' includes, but is not limited to: (1) the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment; and (2) the knowing or negligent unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. Examples: copying, word for word, even a phrase, from a publication, including web pages, without placing quotes around the phrase and citing the source. Dependence upon the aid of sources beyond those authorized by the instructor in writing papers and preparing reports (use of ChatGPT in writing assignments or reports is a violation) represent acts of academic misconduct. Attempts to participate in polling when absent from class are acts of **academic dishonesty** and any student involved in this form of academic misconduct will receive **zero out of 100 percentage points** for their course polling grade. Students suspected of academic dishonesty will automatically be assigned a grade of "I" (incomplete) until the matter is resolved through proper procedures. Students found to have committed scholastic dishonesty will fail this course. Students are expected to know their rights and responsibilities as put forth in the University of North Texas Catalog and the Student Guidebook.

15. Policy on the use of Generative AI models/tools:

For this class, you are allowed to use generative Artificial Intelligence (AI) tools to: 1) generate ideas, 2) access explanations of material/topics discussed in class, 3) code, 4) analyze and process data, 5) create images or visualize data, and 6) organize your time or tasks. However, one of the objectives of the "Solutions" writing assignment is for you to develop effective writing skills and present your findings and proposal in a clear and effective scientific manner. Therefore, **DO NOT use AI tools to compose/write your Solutions Assignment**. If use of AI is detected in any portion of a submitted Solutions Assignment, the student submitting such an assignment will receive zero points for plagiarism/unauthorized use of AI tools.

BIOL 1132.004 ENVIRONMENTAL SCIENCE: Tentative Schedule
FALL 2026: In-person meetings on Tuesdays and Thursdays, 3:55 – 5:15 pm

Week	Date & Chapters	Topics	
1	Aug 17 – 21 Chap. 1	ADMINISTRATIVE DETAILS: ENVIRONMENTAL INTERRELATIONSHIPS	Review syllabus, course expectations, etc. The term "environment"; interdisciplinary nature; emerging global issues; individual decisions; environment and health.
2	Aug 24 – 28 Chap. 3.3 Chap 4	ENVIRONMENTAL ECONOMICS INTERRELATED SCIENTIFIC PRINCIPLES: MATTER, ENERGY AND ENVIRONMENT	Valuing environmental systems, Cost-benefit analysis. Energy flow through ecosystems; cycling of matter in ecosystems.
3	Aug 31 – Sep 4 Chap. 5	INTERACTIONS: ENVIRONMENT AND ORGANISMS	Ecological concepts; natural selection; how evolution influences biodiversity; species extinctions; carrying capacity.
4	Sep 7 – 11 Chap. 6	KINDS OF ECOSYSTEMS AND COMMUNTIES	Competition, predator/prey, parasites, herbivores, and mutualists; trophic levels; keystone species; succession; invasive species; restoration ecology; biomes.
5	Sep 14 – 18 Chap. 7	***EXAM 1 – Tuesday, 15 September*** POPULATIONS: CHARACTERISTICS AND ISSUES	Population demography; population affluence.
6	Sep 21 – 25 Chap. 15	WATER	Freshwater systems; global challenge; water use; pollution; water management.
7	Sep 28 – Oct 2 Chap. 12	LAND USE	Land use planning and urban growth
8	Oct 5 – 9 Chap. 13	SOIL AND ITS USES	Soil science; soil formation; soil erosion; soil conservation.
9	Oct 12 – 16 Chap. 14	AGRICULTURE AND PEST MANAGEMENT	Development of agriculture; fertilizers; ag chemicals; pesticides.
10	Oct 19 – 23 Chap. 11	BIODIVERSITY AND CONSERVATION BIOLOGY	Scope of biodiversity; background extinction rates; mass extinctions; causes of biodiversity loss.
11	Oct 26 – 30 Chap. 18	***EXAM 2 – Tuesday, 27 October*** MANAGING OUR WASTES	The wastes we generate.

12	Nov 2 – 6 Chap. 17	GLOBAL CLIMATE CHANGE	Earth's climate system; human influences on the atmosphere; trends and impacts of changes in climate; responding to climate change. Discuss the book "The new climate war: the fight to take back the planet."
13	Nov 9 – 14 Chap. 17	GLOBAL CLIMATE CHANGE	Discuss the book "Risk and Resilience in the Era of Climate Change."
14	Nov 16 – 20 Chap. 9	NONRENEWABLE ENERGY	Sources of energy; coal, natural gas, and crude oil; depletion of oil supplies; alternative fuels; impacts of fossil fuel use; nuclear energy..
15	Nov 23 – 27	***THANKSGIVING BREAK VACATION*** **Yippie Yahoo!**	
16	Nov 30 – Dec 4 Chap. 10	RENEWABLE ENERGY ALTERNATIVES	Sources of renewable energy; bioenergy; hydroelectric energy; solar energy; wind power; geothermal energy; Ocean energy; hydrogen fuel cells.
	Dec 7	***FINAL EXAM – 3:30 PM, Monday, 7 December***	