BIOL 1132.001: ENVIRONMENTAL SCIENCE

INSTRUCTORS

First half: Samuel James Ogden, Jr.

Office Location: Life Sciences Building A246 room B

Phone Number: 940-565-4213

Office Hours: Monday and Wednesday 10:00 to 10:45 AM until March 7, 2024

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Second Half: Dr. Jaime E. Jimenez, PhD.

Office Location: Environmental Science (EESAT) 310V

Phone Number: 940-565-8594

Office Hours: Monday and Wednesday 12:00-12:30 March 17-May 7, 2025

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All lectures will be in person Monday, Wednesday, and Friday from 11:00 -11:50 AM in Gateway 132. Lab is being run by Ms. Jennifer Gnau and is in the Environmental Sciences Building..

Communication Expectations

Please contact us through UNT Eagle Connect (not through Canvas) and allow 24 hours for a response. We cannot discuss grades via email because of FERPA, but we are happy to do so in person.

Course Description

This is an interdisciplinary study of Environmental Science on basic concepts, including critical scientific thought, biodiversity, resource management, pollution, global climate change, resource consumption, and population growth. Emphasis will be given to how these concepts affect and are affected by human society.

Lecture will be in person and there is no provision for video recording these.

The laboratory is a separate class and meets in person; it must be taken simultaneously with this course.

Course Structure

There are 16 weeks of content that we will move through. We will open up the new PowerPoints and chapters each week. McGraw Hill Connect can be accessed through a tab on UNT Canvas. Please complete the assignments on a weekly basis. This is structured this way because of the lab schedule. Professor Ogden will manage the course before spring break and Professor Jimenez will take over after spring break.

Each chapter has McGraw Hill SmartBooks active learning assignments (10 points). We will also give iClicker quizzes in class (5 points) to encourage attendance and participation.

Some chapters are really short and we will start a new chapter or module to allow us to review before the lecture exams. So if possible, we will move ahead of our published schedule.

Course Objectives

1. Identify the scientific method and its underlying concepts and principles. (CLO 1)
2. Recognize the role of energy, matter, and the environment. (CLO 2)
3. Explain how land use planning affects to the environment. (CLO 3)
4. Identify the role of population and our sustainable use of natural resources. (CLO 4)
5. Explain soil science, sustainable agriculture, and modern farming practices. (CLO 5)
6. Recognize pest management and its role in the environment. (CLO 6)
7. Relate water management, air quality, environmental regulations, solid waste management, and the role of renewable and non-renewable resources. (CLO 7)
8. Describe biodiversity, different ecosystems and ecological communities and how they interact, and the role of climate change and sustainability. (CLO 8)
9. Discuss Air Quality Issues; describe categories of air pollutants, the nature of smog, acid rain, ozone depletion, control of air pollution and the role of air pollution in the developing world. Also discuss indoor air pollution and noise pollution (CLO 9)
10. Discuss solid waste management, kinds of solid wastes, and methods of waste disposal (CLO 10)
11. Discuss biodiversity, extinction, value of biodiversity, threats to biodiversity, and what is being done to promote biodiversity (CLO 11)
12. Describe non-renewable energy resources, discuss hydraulic fracturing, major energy sources, how fossil fuels were formed and methods of extraction. Discuss issues with fossil fuels and atomic energy. Explain what happens in a nuclear chain reaction and the nuclear fuel cycle. (CLO 12)
13. Describe what is meant by renewable energy, contrast the types of renewable energy, and the role of conservation. (CLO 13)
14. Describe interactions between organisms and their environments, the concept of limiting factors, habitats, and niches. Explain how natural selection operates and the various relationships between organisms, and between organisms and their environments. (CLO 14)
15. Compare ecosystems and communities, what is mean by terrestrial and aquatic succession, the major terrestrial biomes, and aquatic ecosystems. (CLO 15)

16. Explain the science of how the earth is a greenhouse planet; describe the geological basis behind climate change, the consequences of climate change, and what might be done to address it. (CLO 16)

Materials

- *Environmental Science* 16th Edition by Eldon Enger and Bradley Smith, **ISBN:** 9781266361555 with McGraw Hill Connect access card 9781266214950 to access tutorials. The McGraw Hill Connect access card should have an eBook as part of the package if you do not want a physical textbook
- *BIOL 1132 Laboratory Manual* by Dr. Jaime Baxter-Slye.

Teaching Philosophy

Though this is a non-major's class, please complete assignments on time and don't procrastinate. The online materials and canvas quizzes are easy to ignore until the last minute so please don't get behind. You are given a lot of freedom as to when you do the readings or listen to podcasts, however, online classes have an entire different skill set.

This is supposed to be an enjoyable experience—we often have people who get excited to find there is a class in biology where no frogs are dissected. The last thing we want to do is to have a boring class and a lot of the topics have importance in today's world. If you participate in discussions, you will get a lot out of this class. If we can instill a lifelong passion for environmental issues and sustainability, we have accomplished one of our major goals.

Makeup Policy

According to College of Science rules, makeups are to be documented and are given at the discretion of the instructor and for (1) an official University approved absence, (2) a note from a local examining physician, (3) military or jury duty, or (4) participation in a religious observance from a recognized group.

Point Breakdown

Breakdown of Course Points

Assignment / Activity	Points

Four unit exams and one Cumulative Final exam; 125 points each • If you like your grade on the first four lecture exams, you do not have to take the final. The cumulative lecture exam will substitute for the lowest or a missed lecture exam; essentially, the four highest scores will be counted	500
McGraw Hill SmartBooks	100
iClicker quizzes	100
Lab (*separate, dual enrolled course*)	300
Total Points	**1000**

A>900 points; B: 800-899; C: 700-799; D: 600-699; F<599.

In past semesters, a 900 gets an "A" but an 899 gets a "B."

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.

Course Policies

Assignment Policy

Each week, a new chapter will be opened up and there will be:

1. Assigned readings from McGraw Hill Connect using Learn/Smart (worth 10 points) to be completed usually on Sunday. This is an active reading program and requires you to log in.
2. An iClicker quiz (worth 10 points total) to be taken in class on each chapter; these cannot be made up
3. Each lecture exam will cover four chapters.
4. The final exam will cover all 16 chapters.

Examination Policy

All lecture exams and the final **are in person**, **closed book** and to be t**aken individually**-- we count the highest four of five exams. If you miss an exam due to a university-sponsored event, please provide information in advance so we can work something out. For medical absences, we will need a note from a local examining physician. In other cases, the score on the final will replaced the lowest or a missed lecture score.

Instructor Responsibilities and Feedback

While we see ourselves as facilitators and moderators we are committed to your success and mastery of the material in environmental science, Please understand in a class of this size it may be a week before grades are uploaded.

Please use **UNT Eagle Connect** in all email correspondence—do not use CANVAS email and please give your full name and the section you are in. Since we have other responsibilities, it often takes about 24 hours for a response.

Late Work

No late work is accepted.

Attendance Policy

Attendance to lectures and performing all assignments is required. If you log into iClicker, it should record your attendance

Class Participation

There is a 100-point category reserved for McGraw Hill Smartbook assignments for all 16 chapters and classroom assignments/discussions.

There is a 100 point category for iClicker quizzes. These may be given during any lecture period and do not have a scheduled date. We will only count the 10 highest. Please participate.

Syllabus Change Policy

We reserve the right to extend due dates on exams in case of a weather emergency; however, unless there was a typographical error, I will not move an exam date forward or backward.

UNT Policies

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. If you are caught cheating on a exam, you will receive a zero pending further investigation and you will be referred to Academic Affairs.

ADA Policy

The University of North Texas makes reasonable academic accommodations 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 at http://www.unt.edu/oda. You may also contact ODA by phone at (940) 565-4323.

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.

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 Blackboard 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) 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).

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) 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/) 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.

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).

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.

Course Schedule

Week of	Topics	Chapters
January 12	Administrative Details, syllabus, expectations for course, Environmental Interrelationships	Chapter 1
January 19	Interrelated Scientific Concepts: Matter, Energy and the Environment	Chapter 4
January 26	Interactions: Environments and Organisms	Chapter 5

February 2	Kinds of Ecosystems and Communities	Chapter 6
February 6 (Friday)	**EXAM 1**	**Chapters 1, 4, 5, and 6.**
February 9	Populations: Characteristics and Issues	Chapter 7
February 16	Biodiversity Issues	Chapter 8
February 23	Land Use Planning	Chapter 12
March 2	Soil	Chapter 13
March 6 (Friday)	**EXAM 2**	**Chapters 7, 11, 12, and 13**
March 9-13	SPRING BREAK	
March 16	Agricultural Methods	Chapter 14
March 23	Water Management	Chapter 15
March 30	Energy and Consumption	Chapter 9
	Non-renewable Energy	Chapter 10

April 6	Renewable Energy	Chapter 11 (on exam 4)
April 10 (Friday)	**EXAM 3**	**Chapters 8, 9, 14, and 15**
April 13	Solid Waste	Chapter 18
April 20	Air Quality	Chapter 16
April 27	Climate Change	Chapter 17
April 29 (Wednesday)	**Exam 4**	**Chapters 10, 16, 17, and 18**
May 4 (At 10:00 AM)	**Final**	**Optional Cumulative Final**