

University of North Texas at Dallas
Spring 2015
SYLLABUS

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|---|---|
| Course Abbreviation/Number/Title/Semester Hrs BIOL1132D_396: Environmental Science Laboratory: 0 Hrs | |
| Department of Life and Health Sciences Division of Liberal Arts and Life Sciences | |
| Instructor Name: | Dr. Steve J. Gaciri |
| Office Location: | Room 253, Founder's Hall (Building 2) |
| Office Phone: | (972) 338-1525 |
| Email Address: | steve.gaciri@unt.edu |
| Office Hours: | by appointment |
| Virtual Office Hours: | N/A |
| Classroom Location: | Room 255, Founder's Hall (Building 2) |
| Class Meeting Days & Times: | Wednesday 7:00 am – 8:50 pm |
| Course Catalog Description: | Interdisciplinary approach to understanding basic concepts in environmental science including critical scientific thought, biodiversity, resource management, pollution, global climate change, resource consumption and population growth. Emphasis on how these concepts affect and are affected by human society. Includes laboratory. May not be counted toward a major or minor in biology. <i>Note: May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.</i> |
| Prerequisites: | None |
| Co-requisites: | BIOL1132D_096 Lecture |
| Required Text: | Laboratory manual: Petersen LH, King MK, Paulos P, La Point T, Thompson R. 2012. <i>Environmental Science Laboratory and Field Activities</i> . Kendall Hunt Publishing Co. Dubuque, IA, United States of America. ISBN: 978-1-4652-0229-1 |
| Recommended Text and References: | |
| Access to Learning Resources: | UNT Dallas Library: phone: (972) 780-3625; web: http://www.unt.edu/unt-dallas/library.htm UNT Dallas Bookstore: phone: (972) 780-3652; e-mail: 1012mgr@fhcg.follett.com |
| Course Goals or Overview: | |
| | The goal of this course is to introduce students to environmental science and to give students the background information needed to critically think about current environmental issues. Topics will include basic ecology, a review of environmental policy, and resource management theories. The course will include discussions of current environmental and conservation challenges, many of which do not have a clear-cut solution. Students should be willing and able to voice and defend their opinions on these subjects as well as be respectful of the opinions of others. Students will be evaluated based on exam performance, lab reports, assignments, and oral presentation. |
| Learning Objectives/Outcomes: At the end of this course, the student will | |
| 1 | Demonstrate the ability to assimilate and critically think about biological and scientific processes/theories. |
| 2 | Demonstrate the ability to assimilate and critically think about environmental policy and legislation. |
| 3 | Explain the various roles of organisms in their environment, and discuss the interrelatedness of living organisms, environmental processes, and human cultural and societal needs. |
| 4 | Be able to accurately explain the conflicting social, economic, and biological needs of humanity and other living organisms. |
| 5 | Identify the major attributes and characteristics of the earth's major ecosystems and explain the role they play in economically important ecosystem services and biotourism. |
| 6 | List and discuss various personal and corporate actions that can mitigate or reverse the negative impact of human activities on the biosphere; explain various tradeoffs related to sustainable stewardship of the earth's biodiversity and its resources. |

Course Outline

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated by the instructor during class.

Laboratory Schedule

| Week | Date | Topic | Points |
|------|------------------|---|------------|
| 1 | | - NO LAB - | N/A |
| 2 | Jan 22 | Lab Safety Lab 1. Environmental Ethics and the Scientific Method Lab Assignment 1: Worksheet on <i>Cancer Cure or Conservation</i> | 10 |
| 3 | Jan 29 | Movie: <i>Gasland</i> Lab Assignment 2: Worksheet on the Movie: <i>Gasland</i> | 10 |
| 4 | Feb 5 | Lab 10. Human Population and Environmental Impact Lab Report 1: Human Population and Ecological Footprint | 10 |
| 5 | Feb 12 | Lab 2. The Carbon Cycle Lab Report 2: Photosynthesis | 10 |
| 6 | Feb 19 | Lab 3. The Flow of Energy through Ecosystems Lab Report 3: Flow of Energy through Food Web | 10 |
| 7 | Feb 26 | Lab 5. Preserving Local Ecosystems Lab Assignment 3: Worksheet on the Movie: <i>Cane Toads</i> | 10 |
| 8 | Mar 5 | Lab 6. Water and Water Pollution Lab Report 4: Water Quality Analysis | 10 |
| 9 | Mar 12 | Videos: Plastic Bags - Bottled Water – Poison Waters Lab Assignment 4: Worksheet on the videos | 10 |
| | Mar 16-22 | SPRING BREAK | |
| 10 | Mar 26 | Lab 11. Resource Consumption Lab Report 5: Marine Fisheries | 10 |
| 11 | Apr 2 | Lab 4. Land Use and Resource Management Lab Report 6: Soil Analysis | 10 |
| 12 | Apr 9 | - STUDENT PRESENTATIONS - | 10 |
| 13 | Apr 16 | - STUDENT PRESENTATIONS - | |
| 14 | Apr 23 | Lab Assignment 5: Worksheet on the Movie: <i>Kilowatt Ours</i> | 10 |
| 15 | Apr 30 | Actual date to be announced at a later time Worksheet due on Dec 10 (day of the final exam) | (optional) |
| 16 | May 7 | - NO LAB - | |

Course Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

Laboratory (100 points) – You will perform experiments designed to give you hands-on real-world applications of the lecture material. In some cases, you will watch documentaries to complement the experiments. After each laboratory exercise, you will have an assignment worth 10 - 20 points, for a total of 100 points. **Each assignment is due at the beginning of the next lab session.** You do not receive a separate grade for lab, so the points received for the laboratory (out of 100) will be added into the lecture grade calculation.

Note: The lab is worth 25% of your final overall grade for the course. However, you must receive a passing grade (60% or higher) in the laboratory to receive a passing grade in the class. Students must pass both the lecture and the lab independently to pass the course (i.e. if you fail the lab, you automatically fail the entire course and if you fail the lecture, you automatically fail the course).

Grading Matrix:

| Instrument | Value (points) | Total |
|-------------------------|---|------------|
| Research Paper | thesis sentence (10 points), annotated bibliography (15 points), rough draft (25 points), final research paper (50 points) | 100 |
| Midterm Exams | 3 exams worth 100 points each | 300 |
| Final Exam | Comprehensive exam | 100 |
| Lab assignments/Reports | 10 – points each 120 | 100 |
| Total: | | 600 |

Grade Determination:

Separate letter grades will not be assigned for the lab. As mentioned in the syllabus for BIOL1132D_095, the lab is worth one-fourth of the total course grade (25%). This is a large component of your course grade and should be an opportunity to improve your grade, rather than harm it. **You must receive a passing grade (60% or higher) in the laboratory to receive a passing grade in the class.**

University Policies and Procedures**Students with Disabilities (ADA Compliance):**

The University of North Texas Dallas faculty is committed to complying with the Americans with Disabilities Act (ADA). Any student requesting academic accommodations based on a disability is required to register with Disability Services each semester. A letter of verification for approved accommodations can be obtained from this office. Please be sure the letter is delivered to me as early in the semester as possible. Disability Services is located in the Student Life Office in DAL2, Suite 200 and is open 8:30 a.m. – 5:00 pm, Monday through Friday. The phone number is (972) 338-1775.

Student Evaluation of Teaching Effectiveness Policy:

The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class.

Assignment Policy:

Collaborative efforts on completing the assignments are encouraged so long as all member of the collaboration contribute equally. As with all other graded assessments, cheating will not be tolerated. While collaborations are encouraged, each student must submit their own work, which cannot be identical to the work submitted by the other members of the collaboration. Assignments should be turned in on time. Assignments should be turned in on time. Late assignments will be graded, but with a penalty of 10% each day it is late.

Exam Policy:

Exams should be taken as scheduled. No makeup examinations will be allowed except for documented emergencies (See Student Handbook). Students are allowed to take make-up one missed exam, with proper documentation. The instructor must be contacted within 24 hours of the exam to schedule a make-up. A makeup exam must be taken within one week of the original exam. If a student knows in advance that they will miss an exam, they must take the exam prior to the exam date. There is no make-up for the second or subsequent missed exams. Students should arrive on time to take the exam. On exam day, once the first exam is turned in, no more exams will be distributed to students that arrive late to the exam period. Any student caught cheating will automatically receive a 0 on the exam, and the instructor may pursue further disciplinary action.

Academic Integrity:

Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of Academic Integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Student Code of Academic Integrity at http://www.unt.edu/unt-dallas/policies/Chapter%2007%20Student%20Affairs,%20Education,%20and%20Funding/7.002%20Code%20of%20Academic_Integrity.pdf for complete provisions of this code.

In addition, all academic work submitted for this class, including exams, papers, and written assignments should include the following statement:

On my honor, I have not given, nor received, nor witnessed any unauthorized assistance that violates the UNTD Academic Integrity Policy.

Bad Weather Policy:

On those days that present severe weather and driving conditions, a decision may be made to close the campus. In case of inclement weather, call UNT Dallas Campuses main voicemail number (972) 780-3600 or search postings on the campus website www.unt.edu/dallas. Students are encouraged to update their Eagle Alert contact information, so they will receive this information automatically.

Attendance and Participation Policy:

The University attendance policy is in effect for this course. Class attendance and participation is expected because the class is designed as a shared learning experience and because essential information not in the textbook will be discussed in class. The dynamic and intensive nature of this course makes it impossible for students to make-up or to receive credit for missed classes. Attendance and participation in all class meetings is essential to the integration of course material and your ability to demonstrate proficiency. Students are responsible to notify the instructor if they are missing class and for what reason. 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.

Diversity/Tolerance Policy:

Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive and inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Office of Student Life as the instructor deems appropriate.

Use of Electronic Gadgets in the Classroom:

You are allowed to take notes using laptops/iPads/other electronic devices. You are allowed to record the lectures. The instructor reserves the right to ask you to discontinue use of an electronic device if it becomes disruptive to others in the classroom.

Food/Drink Policy

No food or drinks are allowed in the classroom or the laboratory, except for water.