University of North Texas at Dallas
Fall 2013
SYLLABUS

BIOL1132D-094 : Environmental Science 3Hrs			
Department of	**Life and Health Sciences**	**Division of**	**Liberal Arts and Life Sciences**

Instructor Name:	Dr. Aubrey Frantz
Office Location:	Room 251, Building 2
Office Phone:	972-338-1523
Email Address:	aubrey.frantz@unt.edu
Office Hours:	**M 10:00-11:00** **W 10:00-11:00** **R 3:00-4:00,** **(If you need another time, please contact me by email)**
Classroom Location:	**DAL2 242**
Class Meeting Days & Times:	**R 4:00-6:50**
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 towards a major or minor in biology. May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.
Prerequisites:	**None**
Co-requisites:	**BIOL1132D Laboratory**
Required Text:	Visualizing Environmental Science. LR Berg and MC Hager. 2009. John Wiley and Sons, Inc. NJ. Lab Manual: Environmental Science Laboratory and Field Activities. MK King et al. 2006. Kendall/Hunt Publishing Co.
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@fheg.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. Students will be willing and able to voice and defend their opinions on these subjects as well as be respectful of the opinions of others.

Learning Objectives/Outcomes: At the end of this course, the student will

1	Be able to explain the conflicting biological, social, economic and needs of humanity and other living organisms
2	Demonstrate the ability to assimilate and critically think about environmental issues, environmental policy and legislation
3	Define the role of organisms in their environment and the interrelatedness of organisms and environmental processes
4	Identify major components of the ecosystem and their role in global sustainability

Course Outline

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

TOPICS	TIMELINE
Course Introduction Environmental Dilemmas We Face (Chapter 1)	8/29
Environmental Sustainability (Chapter 2) Environmental History, Politics and Economics (Chapter 3)	9/5
Environmental History, Politics and Economics (Chapter 3) Risk Analysis (Chapter 4)	9/12
Exam 1 (Chapters 1-4)	9/19
How Ecosystems Work (chapter 5) Ecosystems and Evolution (Chapter 6)	9/26
Human Population Change and the Environment (Chapter 7) ***Research Paper/Presentation topic due on Blackboard***	10/3
Exam 2 (Chapters 5-7)	10/10
Air and Air Pollution (Chapters 8) Global Climate Change (Chapters 9)	10/17
Freshwater Resources and Water Pollution (Chapters 10) *Movie: An Inconvenient Truth*	10/24
Exam 3 (Chapters 8-10)	10/31
Biological Resources (Chapter 15) Solid and Hazardous Waste: An unrecognized Resource (Chapter 16)	11/7
Nonrenewable Energy Resources (Chapter 17)	11/14
Renewable Energy Resources (Chapter 18) ***Research Paper due on Blackboard***	11/21
THANKSGIVING	11/28
Energy Discussion Question Student Presentations	12/5
Exam 4 (Chapters 15-18)	12/12

Course Evaluation Methods

Grade determination: Separate letter grades will not be assigned for the lab. While laboratory accounts for only 20% of your grade, *you must receive a passing grade (60% or higher) in the laboratory to receive a passing grade in the class.*

Exams –You will be given four in-class examinations. Each exam is worth 100 points. The exams will consist of a combination of multiple choice, true/false, fill in the blank and short answer questions. Attendance is required for all exams. Any student found cheating on an exam will receive a zero for the exam and may face other disciplinary action. ***Note: 882-E scantrons and pencils are required for every exam.***

Presentation and Research Paper – You will give a presentation on an environmental issue that our society is currently facing. Your presentation, which will be made in class, should be approximately 10 minutes, include a description of the issue, the causes of the issue and potential resolutions. Paper/Presentation topics must be submitted and approved by the respective date. You will also submit a 5 page research paper that addresses the biological, social, and economic arguments of the environmental issue that you chose to present.

Energy Resource Discussion – We will have a class discussion on an environmental science issue that will be communicated by the instructor in advance. Students should come prepared to discuss the topic knowledgably and effectively. Student participation in the discussion will be graded and will be incorporated into the total grade as bonus points.

Lab Assignments - 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 associated lab report or lab assignment worth 10 points. Each assignment is due at the beginning of the next lab session. Late assignments will be graded, but with a penalty of 10% each day it is late.

Grading Matrix:

Instrument	Value
Exam 1	100
Exam 2	100
Exam 3	100
Exam 4	100
Presentation	50
Research Paper	50
Laboratory	125
Total:	**625**

Grade Determination:
A = 90% or better
B = 80 – 89 %
C = 70 – 79 %
D = 60 – 69 %
F = less than 60%

TEXAS CORE CURRICULUM
Student Learning Objective and Outcome Assessments:

Objective 1a, 2a, 2b and 2d: Students will write an argument style paper on an environmental issue that incorporates biological, social, and economic arguments. This will introduce them to the tools required for research in many disciplines, and facilitate successful research in the future. Students will be graded on content, spelling and grammar, references (one of which must be from the internet), the strength of the argument, and the extent to which they have though critically about the feasibility of treatment and degree of exploration. The student will then present the information they have collected to the class using a variety of media including, power point, prezi, posters, or any combination of these.

Objective 2c: During the unit exploring energy sources, students are presented an essay question in which they discuss the use of fossil fuels for energy from an environmental and non-environmental viewpoint. Students must construct a solution that adequately resolves the conflict. Students will be graded on the correctness of the discussion and the feasibility of the proposed resolution.

Objective 3a and 3b: Students will participate in a discussion of alternative energy sources and their environmental sustainability. Students will be graded on their participation.

Assessment Rubrics:

Objective: 1a, 2a, 2b and 2d:
Topic choice and applicability to environmental science (5 points) _____
Is the paper topic appropriate for the class?

Content (25 points) _____
Has the student provided adequate background information and summarized it correctly?
Have appropriate conclusions been drawn from background information?
Has an original idea, supported by evidence, been proposed by the student?
Has the student made an effective closing argument or statement?

Formatting, grammar, spelling, and style (10 points) _____
Is the paper formatted correctly based on the requirements outlined?
Are there spelling and grammatical errors? If so, with what frequency and intensity do they appear?

Literature Cited (10 points) _____
Are the citations formatted properly in both the text and the literature cited section?
Does the number of citations meet the requirements outlined (a minimum of 5, with at least 3 peer-reviewed sources)?
Are the citations appropriate for the topic being written about?

Objective: 3a and 3b

Score:	Description
4 – Exceeds expectations	The student contributed to the discussion by offering his/her opinion, or by clarifying a topic of conversation. The information shared by the student will demonstrate that he/she has assimilated course curriculum and curriculum obtained from extra readings, or research, or both.
3 – Acceptable	The student contributed to the discussion by offering his/her opinion, or by clarifying a topic of conversation. The information shared by the student will demonstrate that he/she has assimilated course curriculum
2 – Below expectations	The student contributed to the discussion, but the comments made by the student demonstrated a lack of understanding of course curriculum
1 – Unacceptable	The student did not contribute to the discussion

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). Students' with documented disabilities are responsible for informing faculty of their needs for reasonable accommodations and providing written authorized documentation. Grades assigned before an accommodation is provided will not be changed as accommodations are not retroactive. For more information, you may visit the Student Life Office, Suite 200, Building 2 or call Laura Smith at 972-780-3632.

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:
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).

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.

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 & 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.