

University of North Texas at Dallas
Spring 2016
SYLLABUS

BIOL1132D-002 : Environmental Science 3Hrs			
Department of	Life and Health Sciences	Division of	Liberal Arts and Life Sciences
Instructor Name:	Dr. Kelly Varga		
Office Location:	Room 308, Building 2		
Office Phone:	972-338-1529		
Email Address:	kelly.varga@untdallas.edu		
Office Hours:	Tuesday/Thursday- 1:00-2:30 Wednesday- 1:00-2:30		
Classroom Location:	DAL 2 308		
Class Meeting Days & Times:	Tuesday and Thursday- 11:30-12:50		
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:	Textbook: Karr, S., J. Interlandi, and A. Houtman. 2015. <i>Environmental Science for a Changing World</i> . Second Edition. Macmillan Education. ISBN10: 1464162204; ISBN13: 9781464162206 <i>(LaunchPad platform accompanying the textbook will be provided by the instructor).</i> Lab learning materials: Jones & Bartlett Learning. 2013.		
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. 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.

Date	Chapters	Launch Pad Quiz Dates
1/19	Course Introduction	No quiz
1/21	Chapter 1 -Enviornmental Literacy and the Goal of Sustainability	Chapter 1- 1/24
1/26	Chapter 2/3 -Science Literacy and the Process of Science/ Information Literacy and the Process of Toxicology	
1/28	Chapter 3 continued....	Chapter 2&3- 1/29
2/2	Chapter 4 -Human Populations	
2/4	Chapter 4 cont.... Chapter 5 - Environmental Health	Chapter 4 - 2/5
2/9	Movie	Chapter 5 – 2/10
2/11	Exam 1 (Chapters 1,2,3,4,5)	No quiz
2/16	Chapter 7 -Managing Solid Waste	
2/18	Chapter 8 – Ecosystems and Nutrient Recycling	Chapter 7- 2/18
2/23	<i>Library Instruction- Research Literacy</i>	Chapter 8 - 2/23
2/25	Chapter 9 -Population Ecology	Chapter 9- 2/29
3/1	Chapter 11 -Evolution and Extinction	
3/3	Chapter 12 -Biodiversity	Chapter 11- 3/4
3/8	Chapter 12 cont... catch up and environmental in the news	Chapter 12- 3/9
3/10	Exam 2 (Chapters 7,8,9,11,12) <i>**Thesis Statement due: see Blackboard for the appropriate paper work to turn in, in lecture</i>	
3/14-20	SPRING BREAK	
3/22	Chapter 14 - Freshwater Resources	Chapter 14 – 3/23
3/24	Chapter 15 - Water Pollution	Chapter 15- 3/27
3/29	Chapter 16 - Feeding the World	
3/31	Chapter 16 cont ...catch up	Chapter 16- 4/1
4/5	Chapter 17 - Sustainable Agriculture: Raising Crops	Chapter 17- 4/6
4/7	Chapter 18 - Coal	Chapter 18- 4/11
4/12	Exam 3 (14-18)	No quiz
4/14	Chapter 19 - Oil and Natural Gas	Chapter 19- 4/17
4/19	Chapter 20 - Air pollution	Chapter 20- 4/22
4/21	Chapter 22 - Nuclear Power	Chapter 22- 4/24
4/26	Chapter 23 - Sun, Wind, Water, and Earth Energy	Chapter 23- 4/29
4/28	Chapter 24 - Environmental Policy	
5/3	Catch up...	Chapter 24- 5/6
5/5	Environmental news/policy discussion **Research paper due with attached rubric	
5/10	Final Exam/Exam 4 (Chapters 19, 20,22,23,24)	No quiz

Lab Schedule

Week	Date	Topic	Points
1	Jan 22	- <i>NO LAB</i> -	-
2	Jan 29	Lab Introduction and Safety Lab 1. Environmental Ethics and the Scientific Method Lab Assignment 1: <i>Cancer Cure or Conservation</i>	10
3	Feb 5	Movie: <i>Gasland</i> Lab Assignment 2: Worksheet on the Movie: <i>Gasland</i>	10
4	Feb 12	Lab 10. Human Population and Environmental Impact Lab Report 1: Human Population and Ecological Footprint	20
5	Feb 19	Lab 2. The Carbon Cycle Lab Report 2: Photosynthesis	20
6	Feb 26	Lab 11. Resource Consumption Lab Report 3: Marine Fisheries LAB EXAM 1 – TAKE HOME	20
7	Mar 4	Lab Assignment 3: Worksheet on the Movie: <i>Cane Toads</i> LAB EXAM 1 – DUE AT THE BEGINNING OF THE LAB	10 40
8	Mar 11	Lab 3. The Flow of Energy through Ecosystems Lab Report 4: Flow of Energy through Food Webs	20
9	Mar 18	NO CLASS- SPRING BREAK	
10	Mar 25	Lab 6. Water and Water Pollution Lab Report 5: Water Quality Analysis	20
11	Apr 1	Lab 4. Land Use and Resource Management Lab Report 6: Soil Analysis	20
12	Apr 8	Movie: <i>Crude Impact</i> Lab Assignment 4: Worksheet on the Movie: <i>Crude Impact</i>	10
13	Apr 15	Movie 4: <i>Kilowatt Ours</i> Lab Assignment: Worksheet on movie	10
14	Apr 22	- STUDENT PRESENTATIONS -	40
15	Apr 29	- STUDENT PRESENTATIONS -	
15	May 6	- <i>NO LAB</i> – Reading Day	-
16	May 13	- <i>NO LAB</i> – Finals Week TOTAL:	250

Course Evaluation Methods

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

Grade determination: Separate letter grades will not be assigned for the lab. While laboratory accounts for only 33% 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 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- the laboratory section vs the lecture classroom- that should be approximately 7-10 minutes, and include a description of the issue, the causes of the issue and potential policy in action or resolutions. You will then submit a **5 page research** paper that addresses the biological, social and economic arguments of that environmental issues you chose to present on and turn that paper on the respected date in the syllabus, in lecture. **A thesis statement for the research paper must be submitted by the date designated on the schedule in class.**

Energy News/policy Discussion – You are expected to come to class on the day stated in the syllabus with a news article regarding current environmental policy/events from a credible source and discuss with the class in a group discussion. 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 10-20 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 (points)
Exam 1	100
Exam 2	100
Exam 3	100
Exam 4	100
Presentation	40
Research Paper	50
Launchpad quizzes	200
Laboratory	250
Total:	900

Grade Determination:

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

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.

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%20Integrity.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.