

University of North Texas at Dallas
Fall 2016
SYLLABUS

| BIOL 1132 – 005: Environmental Science Lecture 3 HRS | |
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| Department of | School of |
| Instructor Name: | Charcacia Sanders |
| Office Location: | (Founders Hall (Building 2), Room 305 |
| Office Phone: | Dept. main #: 972.338.1502 cell 214.702-6442 |
| Email Address: | Charcacia.Sanders@untdallas.edu |
| Office Hours: | By Appointment Only |
| Course Format/Structure: | Face to Face |
| Classroom Location: | Founders Hall 240 |
| Class Meeting Days & Times: | TuTh 5:30PM - 6:50PM |
| 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. <i>May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.</i> |
| | None |
| Prerequisites: | None |
| Co-requisites: | BIOL 1132 – 302 |
| Required Text: | Karr, S., J. Interlandi, and A. Houtman. 2015. Environmental Science for a Changing World. Second Edition. Macmillan Education. ISBN10: 1464162204; ISBN13: 9781464162206 LaunchPad Access is required |
| Recommended Text and References: | |
| Access to Learning Resources: | UNT Dallas Library: (Founders Hall) phone: (972) 780-1616 web: http://www.untdallas.edu/library e-mail: Library@untdallas.edu UNT Dallas Bookstore: (Building 1) phone: (972) 780-3652 web: http://www.untdallas.edu/bookstore e-mail: untdallas@bkstr.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. |
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| Learning Objectives/Outcomes: | (Align with professional standards and/or core curriculum objectives)At the end of this course, students will be able to: |
| 1 | Demonstrate the ability to assimilate and critically think about biological and scientific processes and theories |
| 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 discuss the interrelatedness of organisms, environmental processes, and human cultural and societal needs |

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| 4 | Be able to explain the conflicting biological, social, economic and 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 critical ecosystem services |
| 6 | List and discuss various individual and organizational actions that can mitigate or reverse the negative impact of human activities on the biosphere as well as the various tradeoffs related to global sustainability |

Course Outline

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated in class or via class email or Blackboard announcement. Additional readings and activities may be added, these will be noted in the Readings and Activities/Assignments sections.

| TOPICS | TIMELINE | ASSIGNMENT |
|--|----------------------|---|
| Unit 1: Introduction to Environmental Science and Environmental Quality (Chapters 1 – 3, 24) | Weeks 1 – 3 | |
| Environmental Literacy | 08/25 | |
| The Scientific Process and Environmental Policy | 08/30 | |
| Toxicology | 09/01 | Learning Curves: 1, 3(Due 09/07) |
| Exam 1: Chapters 1 – 3, 24 (relevant parts) | | 09/08 |
| Unit 2: Human Populations Dynamics (Chapters 4 – 7, 16 – 17, 25, 30 – 31) | Weeks 5 – 6 | |
| Human Populations and Environmental Health | 09/13 | |
| Feeding the World | 09/20 | |
| Urbanization and Sustainable Communities | 09/27 | Learning Curves: 4 – 7, 16 – 17 (Due 10/03) |
| Exam 2: Chapters 4 – 7, 16 – 17, 25, 30 – 31 (relevant parts) | 10/04 | |
| | | Thesis Statement for Research Paper due on Blackboard (10/07) |
| Unit 3: Interdependence of Earth's Systems: Fundamental Principles and Concepts (Chapters 8 – 13, 28 – 29) | Weeks 7 – 10 | |
| Ecosystems and Nutrient Cycling | 10/06 | |
| Ecosystem Ecology | 10/13 | |
| Evolution and Biodiversity | 10/20 | Learning Curves: 8 – 13 (Due 10/26) |
| Exam 3: Chapters 8 – 13, 28 – 29 (relevant parts) | 10/27 | |
| Unit 4: Nonrenewable and Renewable Resources: Distribution, Ownership, and Use (Chapters 14, 18 - 19, 22 – 23, 26 – 27, 32) | Weeks 11 - 13 | |
| Energy Resources | 11/01 | Annotated Bibliography for Research Paper due on Blackboard (Due 10/29) |
| Land and Water Resources | 11/08 | |
| Water Pollution | 11/17 | |

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| Unit 5: Global Changes and Their Consequences (Chapters 15, 20 – 21, 24, 29) | Weeks 14 - 15 | |
| Air Pollution and Climate Change | 11/22 | |
| STUDENT PRESENTATIONS | 11/29 & 12/1 | Learning Curves: 15, 18 – 23 (Due 12/05) |
| | | Research Paper due on Blackboard (12/03) |
| Exam 4: Chapters 14 -15, 19 – 24, 26, 29 - 32 (relevant parts) | 12/06 | |

Grade determination: Separate letter grades will not be assigned for the lab. While laboratory accounts for only 25% 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.** No make-up exams for unexcused absences. Any student found cheating on an exam will receive a zero for the exam and may face other disciplinary action.

LaunchPad LearningCurves – On the **LaunchPad platform** each chapter of your book has a series of questions (quiz) that will test your reading comprehension. There is no grade for this assignment, simply by completing the questionnaire you will get the corresponding 5 points per chapter. By completing all 21 assigned Learning Curves on time, you will receive 105 points. Late submissions will not be graded.

To register for the LaunchPad component of the course go to:
<http://www.macmillanhighered.com/launchpad/saes2e/2174045> PLEASE bookmark the page to make it easy to return to.

Research Paper – You will be required to write a 5 page research paper on an environmental issue that our society is currently facing. This research paper should address the biological, social, and economic arguments of the environmental issue that you choose. ***A thesis statement for the research paper (10 pts), as well as an annotated bibliography (20 pts) must be submitted and approved by the respective due dates.*** Additional instructions, guidelines and rubrics for the research paper will be discussed in class and posted on Blackboard.

Presentation – You will give a presentation on an environmental issue that our society is currently facing. Your presentation, which will be made using a PowerPoint presentation and should be approximately 10 minutes, include a description of the issue, the causes of the issue, potential resolutions, as well as properly referenced and relevant primary data from peer-reviewed scientific research articles. Additional instructions, guidelines and rubrics for the presentation will be discussed in class and posted on Blackboard.

Course Evaluation Methods

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

Exams: - written tests designed to measure knowledge of presented course material

Assignments: - written assignments designed to supplement and reinforce course material (Insert rubric into the syllabus)

Projects: - assignments designed to measure ability to apply presented course material (Insert rubric into the syllabus)

Grading Matrix:

| Instrument | Measures SLO | Value (points or percentages) | Total |
|------------------|--------------|-------------------------------|-------|
| Laboratory | 1, 3, 4, 5 | | 250 |
| Learning Curve | 2, 3 | 21 points | 105 |
| Research Project | 1, 2, 4, 6 | 1 points | 100 |

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| Exams | 1-6 | 4 points | 400 |
| TOTAL: | | | 855 |

Grade Determination

A = 855 – 770

B = 769 – 684

C = 683 – 599

D = 598 - 513

F = 512 pts or below

University Policies and Procedures

Students with Disabilities (ADA Compliance): The University of North Texas at Dallas makes reasonable academic accommodation for students with disabilities. Students seeking accommodations must first register with the Disability Services Office (DSO) to verify their eligibility. If a disability is verified, the DSO will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, DSO notices of 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 accommodation for every semester and must meet/communicate with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of 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 see the Disability Services Office website at <http://www.untdallas.edu/disability>. You may also contact them by phone at 972-338-1777; by email at UNTDdisability@untdallas.edu or at Founders Hall, room 204. (UNTD Policy 7.004)

CoursEval Policy: Student's evaluations of teaching effectiveness is a requirement for all organized classes at UNT Dallas. 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 students' evaluations to be an important part of your participation in this class.

Assignment Policy: According to the instructor's discretion while working in concert with the division/program's guidelines).

Exam Policy: (*Discuss any special instructions relating to exams-sample given*): 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 (Policy 7.002) at

http://www.untdallas.edu/sites/default/files/page_level2/pdf/policy/7.002%20Code%20of%20Academic_Integrity.pdf

Refer to the Student Code of Student Rights, Responsibilities and Conduct at

http://www.untdallas.edu/sites/default/files/page_level2/hds0041/pdf/7_001_student_code_of_conduct_may_2014.pdf

Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabrication of information or citations, facilitating acts of dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. In addition, all academic work turned in for this class, including exams, papers and written assignments must 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: Campus facilities will close and operations will be suspended when adverse weather and/or safety hazards exist on the UNTD campus or if travel to the campus is deemed dangerous as the result of ice, sleet or snow. In the event of a campus closure, the Marketing and Communication Department will report closure information to all appropriate major media by 7 a.m. That department will also update the UNTD website, Facebook and Twitter with closing information as soon as it is possible. For more information please refer to <http://www.untdallas.edu/police/resources/notifications>

Attendance and Participation Policy: (*Discuss your attendance and participation policy.*)

Revised April 2016 supersedes all previous versions

The University attendance policy is in effect for this course. Please refer to Policy 7.005 Student Attendance at <http://www.untDallas.edu/hr/upol>

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 Dean of Students as the instructor deems appropriate. (UNTD Policy 7.001)