

ENVS 101 Introduction to Environmental Science
Fall 2006, M-W 3-4:20, CHE304

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Course Description:

This course provides an introduction to the basic principles of environmental science. Environmental science, as a discipline, combines aspects of the physical and biological sciences with issues from the social and political sciences. In this course, we will explore the concept of sustainability and how it relates to us, the scientific principles and concepts governing ecosystems and their processes, human population and resource use, how to sustain the biodiversity of the earth, and how we use our energy resources. This course should prepare you to continue to develop your environmental knowledge through further college course work.

Books:

Miller, G. Tyler. 2006. Environmental Science: Working with the Earth (with 1-PASS and InfoTrac). 11th Edition. ISBN/ISSN 0-534-42251-9. Brooks/Cole, Pacific Grove, CA.

You can purchase the text at the bookstore or through any other avenue you wish but you need to get it as quickly as possible. You must be sure to purchase a *new* copy of the latest edition (11th edition) as it will contain your 1-PASS code which will give you access to the web resources. We will begin whether or not you have a copy of the text. If you are having trouble getting your copy, borrow from another student or from me.

You will need internet access for this course. University of Idaho accounts are available if you do not currently have access.

Assignments:

Assignments will track your progress in working through the material. Each week you should spend *at least* 6 hours working on this course outside of the time we spend together. At a minimum:

Read the designated chapters prior to the class for which they were assigned. We will have a quiz in class BEFORE discussing each chapter, so keep up with your reading. Each quiz will include several multiple choice questions and several vocabulary terms.

Go to the Brookscope website and work through the Internet material for the assigned Chapters. Link to the website at <http://biology.brookscope.com/miller11>.

Use the web access to look at definitions of terms, etc. Write up some notes on which Internet resources you accessed and read, what exercises you completed, what links you explored, etc.

Each entry should have a brief note including whether or not you found it helpful in your learning.

Attach printouts of things you did: exercises, quizzes, articles read etc. (no need to attach articles)

Bring Assignments to class to hand in each day. This will prepare you for our quiz at the start of each chapter.

Also, every a week, I will give you a list of INFO-TRAC articles. You will select one of the articles, download it from INFO-TRAC, read the article, summarize the article, hand in your summary and come to class prepared to discuss your article on Thursdays. This will be in addition to your regular homework each week.

Exams:

There will be two mid-term exams and one final exam, as detailed in the syllabus. Each mid-term exam will cover a designated set of chapters. The final exam will cover the entire semester, with an emphasis placed on the latter third of the semester. All exams will be a combination of a) multiple choice questions, b) vocabulary terms and c) discussion questions.

Expectations:

My goal for you this semester is to stimulate some critical thinking on the topics that we cover. As you read the material and work through the on-line exercises, I want you to think about how the course material relates to your life and your environment. I also want you to broaden your thinking to environmental issues which do not directly impact you. It is very important that you participate in class discussions to demonstrate to me that you are achieving this critical thinking goal. If an article in our local newspaper or from some other source catches your eye, bring it to class to share with the others. If some topic particularly relates to you work or some other experience, please share that with us.

You are expected to do all assigned readings and related material before class and to come prepared to discuss them. You may want to outline the material as you prepare for class as well as note any questions you have or points that you would like to cover in the class discussion. I expect your participation in class discussions.

All assignments are due on the stated due date. If you will be out of town or will miss class for another reason, make arrangements to hand your assignment in **early** (drop it off or email it to me). Late assignments will be accepted but will be subject to a grade penalty.

Quizzes must be taken in class. No late quizzes will be given. If you know that you will be gone, call to arrange to take the quiz EARLY. Again: No Late Quizzes will be given.

All exams should be taken on time. If you will be out of town or miss an exam for another reason, make arrangements with me to take the test **early** or, at the worst, make up the test before the next class period.

Evaluation:

There will be quizzes at the beginning of all classes for which there are assigned readings – these are mostly to motivate you to do the reading and the Internet work.

Evaluation will be based on the quizzes, assignments, and exams.

Assignments	20%
Class Participation	5%
Quizzes	30%
Midterm exams	25%
Final exam	20%

Course Syllabus:

Date	Topic
8/21	Class Introduction
8/23	Introduction to Environmental Science and Values
8/28	Ch 1: Environmental Problems
8/30	Ch 2: Science, Matter and Energy
9/4	No Class—Labor Day
9/6	Ch 3: Ecosystems
9/11	Ch 4: Evolution and Biodiversity
9/13	Ch 5: Climate and Biodiversity
9/18	No Class, I'm out of town
9/20	Ch 6: Community Ecology
9/25	Ch 7: Applying Population Ecology
9/27	No Class, I'm out of town
10/2	Review
10/4	Exam 1: Chapters 1-7
10/9	Review Exam 1, Clarification of Concepts
10/11	Ch 8: Sustaining Biodiversity: Ecosystem Approach
10/16	Ch 9: Sustaining Biodiversity: The Species Approach
10/18	Ch 10: Food and Soil Conservation and Pest Management
10/23	Ch 11: Water and Water Pollution
10/25	Ch 12: Geology and Non-renewable Minerals
10/30	Ch 13: Energy
11/1	Exam 2: Chapters 8-13
11/6	Review Exam 2, Clarification of Concepts
11/8	Ch 14: Risk, Human Health and Toxicology
11/13	Ch 15: Air Pollution

11/15 Ch 16: Climate Change and Ozone Layer
11/20 Ch 17: Solid and Hazardous Waste
11/22 Ch 18: Environmental Economics , Politics and World
11/27 Thanksgiving Break
11/29 Thanksgiving Break
12/4 Class Discussion and Review
12/6 Class Review
12/11 Comprehensive final exam some time this week