

Syllabus, Spring/Summer/Fall Introduction to Environmental Science

11:375:101, 3 credits

Course Website: This class is conducted entirely online. All of the materials that you will need for this course (including the textbook) will be found at MindTap[®] through the class Sakai website (www.sakai.rutgers.edu). Tech support for the MindTap[®] site is available at <http://support.cengage.com/magellan/ClassLandingPage.aspx?OptyId=1-1VUPTUF>

Textbook: **Living in the Environment**, 18th ed. Miller and Spoolman with access to MindTap[®]. MindTap[®] access includes an electronic version of the textbook and is available to purchase directly by using the “Cengage.com” link in the Sakai course page. It is also available to purchase at the University Bookstore, at N.J. Books. (Do not purchase an access code through an external Cengage website. It will not work properly.)

A physical copy of the book is not required but MindTap[®] access is.

Instructor: Dr. Craig Phelps

e-mail: phelps@envsci.rutgers.edu

Office Hours: There will be no set office hours. I will try to answer any questions promptly via email or phone and you can meet with me in person by appointment.

Note: For all e-mails, please include “ES101:XX” in the subject line, and give your full name.

Requirements:

There are 25 units to complete for this course. All assignments for each unit will be due at 11:55 p.m. on the day that is scheduled for that unit. Each unit consists of:

1. a reading assignment from the text
2. a series of power-point slides
3. a problem set (4.4 – 14.4 points)
4. a unit quiz (5 points)

Exams:

There will also be two online exams worth 60 or 65 points each. The exam is not a group assignment; you must do your own work. You may consult your notes, slides and text while taking the test, but you may not consult with anyone else. I am depending on each of you to take the test on your own without help. By submitting the test for grading you are stating that it is your work alone. Academic integrity infractions are taken very seriously at the University. If I believe that you have cheated it will be treated according to policy as stated at

<http://academicintegrity.rutgers.edu/academic-integrity-disciplinary-process>

Class Participation:

There will be a total of 6 threaded discussion questions for you to respond to throughout the semester. Each discussion thread is worth 5 points. You are expected to answer the question(s) fully and thoughtfully to earn 4 points and the 5th point will be given for further contributions (i.e. responding to a classmate's answer). Sources must be cited for any information that does not come from the text.

Grading:

Chapter Quizzes – 5 points each	125 pts.
Problem Sets (25) – 4.4 – 14.4 points each	195pts.
Participation – 5 points / discussion	30 pts
<u>Exams – 60 or 65 points each</u>	<u>125 pts.</u>
Total	475 pts.

Final Grades will be assigned on a straight scale: $\geq 90\%$ = A; $\geq 85\%$ = B+; $\geq 80\%$ = B; $\geq 75\%$ = C+; $\geq 70\%$ = C; $\geq 60\%$ = D.

Late Assignments and Make-Ups:

Because meeting the deadlines and completing assignments on time are important parts of this class, late assignments will not be accepted without an acceptable excuse. You may be allowed to make-up up to 2 units at the instructor's discretion. Any other make-ups (if allowed) will be penalized by 50%. Exam make-ups will only be given for a University-approved absence.

Objectives of the Course:

It is our goal to introduce the field of environmental science and show how an understanding of the natural world around us and the application of the scientific method can help us to address the problems facing our planet. Our specific objectives are to:

1. Introduce a variety of environmental problems, and solutions, in a scientific context.
2. Enable students to understand environmental issues using a scientific approach.
3. Improve basic scientific literacy.

SAS Core Curriculum Learning Goals

I: 21st Century Challenges

- c. Analyze the relationship that science and technology have to contemporary social issues.

II: Areas of Inquiry

A: Natural Sciences

- e. Understand and apply basic principles and concepts in the physical and biological sciences.
- f. Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in scientific analysis.

Special Needs: Students with a disability: please contact us immediately so that we may make any necessary arrangements to support a successful learning experience.

Class Schedule

Unit #	Open Date	Deadline	Topic	Reading
1			Introduction	--
2			Sustainability	Chap. 1
3			Nature of Science, Matter and Energy	Chap. 2
4			Matter, Energy and Systems	Chap. 2
5			Ecosystems	Chap. 3
6			Cycles / Biodiversity	Sect. 3.4, 4.1, 4.6 + 5.1
7			Economics	Chap.23
8			Policy / Worldview	Chap. 24, Sect. 25.1+2
9			Population Ecology and Human Population	Sect. 5.3, Chap. 6
10			Terrestrial Ecosystems	Chap. 7
11			Land Management (Sustaining Ecosystems)	Chap. 10
12			Marine Ecosystems	Sect. 8.1-3, Sect. 11.1-3
Exam 1			Covering units 1-12	
13			Food Production and the Environment	Chap. 12
14			Food Production II	Chap. 12
			SPRING BREAK	
15			Water Resources	Chap. 13
16			Water Systems	Sect. 20.5
17			Water Pollution	Chap. 20
18			Non-Renewable Energy	Chap. 15
19			Renewable Energy	Chap. 16
20			Health and Toxicology	Chap. 17
21			Health and Toxicology II	Chap. 17
22			Air Pollution	Chap. 18
23			Climate	Chap. 19
24			Solid and Hazardous Waste	Chap. 21
25			Urbanization	Chap. 22
Exam 2			Covering units 13-25	

Discussion Question Due Dates:

#1 – XX

#2 – XX

#3 – XX

#4 – XX

#5 – XX

#6 – XX