

Environmental Studies: Biological Perspectives (CRN 42035) Lecture Syllabus

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Office Hrs.: Monday 10:00-11:50 am; Tuesday 11:00-11:50 am; Wednesday
11:00-11:50 am; Thursday 11:00-11:50 am; or by appt.

Course Description: This class is one a three-class assemblage (ESR 171, 172, 173) in the non-major's Environmental Studies. These classes need not be taken in sequence. These classes are designed to increase the student's awareness of the issues surrounding the interactions of humans with the natural environment. ESR 171 focuses on primarily biological environmental topics and will highlight local and regional topics. The class includes a laboratory section that introduces basic quantitative techniques for collecting and analyzing data from environmental systems.

Comment [PE1]: as many interactions as I can try to cover from food to water to solid waste.

Course Goals: After successfully completing Environmental Studies 171, students will begin to be able to:

- Relate scientific concepts to local and regional issues.
- Understand basic principles of environmental science, biodiversity, ecology, population biology and the interrelationships between them
- Locate and access environmental information from non-governmental organizations and governmental agencies
- Relate principles of environmental science to your own existence as an individual, as a population, as a species, and as one of many living organisms occupying Earth.
- Develop and communicate informed positions or opinions on contemporary issues.

Comment [PE2]: We also want them to understand that these are global issues, but have them focus more about what we can do to begin to have a more sustainable future.

Comment [PE3]: This information can be very global, but we also help students find the house bills regarding e-waste that were being considered, etc., besides international treaties and such.

Comment [PE4]: Students learn they have opinions without having key information that would help them make better decisions. For example, they truly consider why China put forth the 1-child law.

Textbooks:

The required text is:

Enger, E.D. and Smith, B.F. 2008. *Environmental Science: A Study of Interrelationships*, eleventh edition. McGraw Hill Publishers. (This text is also used in ESR 172! ☺)

Labs: The lab meets once a week in room HT 302 or at various locations, which will be discussed in class beforehand, for our field trips and guest speakers. Lab makes up 30% of your total grade. Due to the hands-on nature of environmental studies and the need for processing the information covered, I expect that you will make every effort to attend all the labs. Students that miss more than 2 labs, without making a completion agreement with their instructor(s), will receive a "no pass" (NP) grade for the entire course.

Readings: General readings are listed on the course schedule. Additional assignments may be made, as needed depending on the topics covered. Assigned readings from outside your text will be made available either by placing them on reserve at the library, by making copies available in class, or by posting them to <http://my.pcc.edu>.

To view the posted readings, logon to <http://my.pcc.edu>, click on "My Courses," and then click on "Environmental Studies: A Biological Perspective." Any articles will be posted under "Files" or "Links." I will often post messages to the message board and/or an announcement to direct you to these readings.

Tests: Two tests, each worth 10% of your grade, and a comprehensive final exam, worth 15% of your grade, will be given over the course of the term as indicated on your schedule. The tests may include multiple choice questions, true/false, matching, diagrams, and short answer questions.

Projects: You will complete two projects by the end of the term. Additional information on these projects will be given out in class as the project times near and you will receive a separate handout that describes these projects.

In Class Assignments and/or Quizzes: Assignments will often be given during class and may include group work, in class discussion, and pop quizzes. **In class assignments and quizzes cannot be made up** and make up 15% of your class grade.

Grades: Assignment/Exam Calendars may be changed in response to institutional, weather, and/or other situations. Environmental Studies is a 4 credit hour class. Grades will be determined from performances on:

Projects-----	20%
Tests (10% each)-----	20%
Final Exam -----	15%
In-Class Assignments & Quizzes -----	15%
Lab Activities & Field Trips -----	30%

An "I" grade may be assigned if the student completes the majority of the course requirements, but makes arrangements to complete the course requirements with their instructor(s). A "W" grade may be assigned if the student has followed established school procedures for withdrawing within the first eight weeks. PCC policy allows students to request "Audit" status or a "Pass/No Pass" grade in lieu of a letter grade within the first three weeks of class.

Attendance Policy: Attendance is essential for a good grade. Good grades and good attendance are strongly correlated. Environmental Studies includes three hours of lecture a week and three hours of laboratory per week. If you miss lecture or lab, then picking up any handouts, learning the material covered, and knowing the assignments given are **your** responsibilities. I strongly encourage you to make every effort to attend each course meeting, because topics covered in lecture may contain details that are not easily available in a textbook, but that you will be expected to know. In addition, you will miss any credit for in-class assignments and/or quizzes that were given that day.

If you do miss lecture or lab, be sure to logon to <http://my.pcc.edu>, click on "My Courses," and then click on "Environmental Studies." Any handouts and events announced in class will usually be posted under "Files" or the message or announcement boards.

Withdrawal Policy: My sincere hope is that you will be able to continue with this course to its completion. We understand that sometimes you may need to withdraw from this course. In this case, withdrawing is entirely up to you. Students have up to the end of the 8th week to withdraw from courses at PCC. If you stop coming to class without withdrawing or having an understanding with your instructors, then we are required to issue the grade that you have earned. If you have difficulties with the course, please talk to me about your options for staying in the course. I also encourage you to use Advising, located in CC 216 (503) 977-4531.

Instructional ADA Policy: If you require specific instructional accommodations, please notify your instructor(s) early in the term to allow time to make individual arrangements as needed and be sure to make the necessary arrangements with the PCC Office for Students with Disabilities (503-977-4341, 503-246-4072 TDD, ST 229).

Expectations: Introductory science classes frequently require more time and effort than students realize. In many ways, science is like learning a new language. Successfully learning science involves a considerable amount of time thinking about and working on the subject outside of class time. In an introductory science course, staying caught up with the topics is especially important. We expect that you will spend approximately **6 hours a week outside of class** to be able to come to lecture class prepared and with any class assignments completed. If I feel you are not performing up to my expectations, I will let you know either through the grades you receive or verbal feedback.

In return, you can expect that I will come to class prepared, will grade and return your assignments in a reasonable time frame, and that I will treat each of you with respect and consideration. If you feel that I am not meeting your expectations, please let me know such that we can work out a solution. I am available outside of class time during office hours and by appointment to address any concerns you may have.

In addition, the students and instructor need to respect the class time together. We all need to treat each other with respect and consideration. This respect includes turning off and stowing away cell phones and other electronic devices during class unless an agreement is made with your instructor and quietly entering/exiting class if you come in late or need to leave early. Thank you for your thoughtfulness in advance! ☺

Environmental Studies 171 Lecture Schedule** (CRN 42035)

Week	Date	Topic	Readings *	Projects
1	Sept. 25	Introduction to ESR 171 © & Toward a Sustainable Future	1	
	Sept. 27	Environmental Inter-relationships	1	
2	Oct. 2	Interactions: Environments and Organisms	5	
	Oct. 4	Interactions: Environments and Organisms	5	
3	Oct. 9	Kinds of Ecosystems and Communities	6	
	Oct. 11	Kinds of Ecosystems and Communities	6	
4	Oct. 16	Exam 1		Exam 1
	Oct. 18	Populations: Characteristics and Issues	7	
5	Oct. 23	No Class Today! Teacher In-Service Day!		
	Oct. 25	Populations: Characteristics and Issues	7	
6	Oct. 30	Biodiversity Issues	11	
	Nov. 1	Biodiversity Issues	11	
7	Nov. 6	Guest Speaker: Larry McIntyre (see http://www.recyclingprofessionals.com)	17	
	Nov. 8	Soil and Its Uses	13	
8	Nov. 13	Guest Speaker: Megan Hanson (see http://www.portlandonline.com/bes/index.cfm?c=34598)	15	Exam 2
	Nov. 15	Exam 2		
9	Nov. 20	Soil and Its Uses and Water Management	13 & 15	
	Nov. 22	No Class Today! Happy Thanksgiving Day!		
10	Nov. 27	Guest Speaker: Steve Cohen (see http://www.portlandonline.com/osd/index.cfm?c=41480)	14	
	Nov. 29	Agricultural Methods and Pest Management	14	
11	Dec. 4	Solid Waste Management and Disposal	17	Big Projects!! Second Small Project due by the 7th!
	Dec. 6	Big Project Sharing Day		
12	Dec. 11	Final Exam! (1:00 pm-3:00 pm) You're Done! Have a wonderful Holiday break!		Comprehensive Final Exam

Comment [PE5]: Introduce the global nature of environmental concerns, e.g., Earth Summit UNCED 1992, Kyoto Protocol 1997, U.N. Millennium Ecosystem Assessment 2005, and the inextricable connections to politics, culture, economy, etc.

Comment [PE6]: Includes discussion of human impact on nutrient cycles world-wide from fossil-fuel burning, conversion of natural ecosystems to agriculture, agricultural runoff, etc.

Comment [PE7]: Includes discussion of global distribution of ecosystems, human impact on ecosystems, and particularly non-native invasive species due to globalization

Comment [PE8]: Compares population growth and impacts in many countries and overall assessment of the human population. Discuss economic, cultural, historical, economic, biological, and political influences on population growth. Have students compare their footprint to typical footprints in more-developed and less-developed nations and their standard of living/expectations.

Comment [PE9]: Discuss Conservation International's biodiversity hot spots, loss of species, ecosystem services, sustainable management.

Comment [PE10]: Discuss Worldwide soil degradation, causes, and management

Comment [PE11]: Discussion of sustainable food systems. Reflect on "Americans eat everything all year long" compared to most of the rest of the world.

Comment [PE12]: Discussion of global problems, e.g. paper versus plastic in Bangladesh, Denmark, Hong Kong, South Africa, etc. We watch a short film from the Basel Action Network regarding electronic waste ending up in developing nations, such as Nigeria and China.

* Readings are from the *Environmental Science* text. Not all parts of each chapter will be covered. Other readings may be assigned during the course of the term, particularly certain case studies and global perspectives in the text.

**This lecture and exam calendar may be changed in response to institutional, weather, or other situations.

You are responsible for reading the chapters prior to the lecture period.

Environmental Studies 171 Laboratory Schedule** (CRN 42530)

Week	Date	Topic and Web Site Readings	To Do
1	Sept. 25	Water Quality Monitoring and Physical Measurements to Assess Watershed Health http://www.lcrep.org/eco_water_qual.htm	Turn in your data sheet for your assigned creek!
2	Oct. 2	Field Trip to Tryon Life Community Farm http://tryonfarm.org/old/index.php	Think about your Cafeteria Project!
3	Oct. 9	Field Trip to a Solar Green Home http://www.sunsmarthomes.com/ and may include visits to The Rebuilding Center http://www.rebuildingcenter.org/ possibly SCRAP http://www.scrapaction.org/	
4	Oct. 16	Field Trip via Tri-Met PSU's walking tour http://www.portlandonline.com/bes/index.cfm?c=34604& and the EcoTrust Building! http://www.ecotrust.org/ncc/	
5	Oct. 23	No Class Today! Teacher In-Service Day!	
6	Oct. 30	Field Trip to Zenger Farm http://www.zengerfarm.org/ [Follow the directions carefully, we'll need to use their "back entrance!"]	
7	Nov. 6	Field Trip to Larry McIntyre's http://www.recyclingprofessionals.com and maybe Free Geek http://www.freegeek.com	1 st small project due by today
8	Nov. 13	Storm Water Education Tour of Facilities led by The Bureau of Environmental Services' Megan Hanson http://www.portlandonline.com/bes/index.cfm?c=41186	
9	Nov. 20	Sharing of Cafeteria Food Choices Projects and guest speaker Dianna Benting, PCC Food Services Manager ☺	Share your Cafeteria Food Choices Projects today!
10	Nov. 27	Field Trip via Tri-Met to Free Geek! http://www.freegeek.org/ and possibly the ReStore or Environmental Building Supplies & back to PCC Sylvania	
11	Dec. 4	Guest Speaker from Far West Fibers http://www.farwestfibers.com/hillsboro.htm and Recycling Activities from your very own Master Recycler ☺ http://www.masterrecycler.org/	Service-Learning Projects are due! Turn in your project journals and timesheets!

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