

Course Description (from the college catalog): A study of broad issues of environmental science and the interaction of humans and the environment. Students may not receive credit for both ENV 1112 and ENV 1411. 3 Credit hours

Course Rationale: We live in an age of unprecedented human population growth. With over 7 billion people on earth, our activities alter natural processes worldwide. This class will help you understand the effects of human populations on natural processes, from local to global scales. And we will consider some of the many ways to minimize those impacts. We will also examine success stories – cases in which environmental concepts and issues are an integral part of people’s decisions to live sustainably.

Learning Outcomes

Students will

- demonstrate an understanding of the scientific method within a disciplinary context
 - *How this will be assessed*
 - In quizzes and exams, you will be asked to analyze descriptions of experimental protocols, and identify appropriate or flawed aspects of the protocols.
- collect, analyze, and interpret data
 - *How this will be assessed*
 - You will collect, analyze, and interpret data for Gapminder unit assignments.
- demonstrate an understanding of the impact of scientific knowledge on the world
 - *How this will be assessed*
 - Quiz questions and essay prompts will require you to understand how scientific knowledge is used to make decisions that affect humanity and our environment.

Text: *Essential Environment, 6th ed.*, by J. Withgott & M. Laposata

Professor: Dr. Joe Poston

email: jpposton@catawba.edu

You may reasonably expect a reply to email within 24 hours. If you haven’t received a reply within 24 hours, send a reminder email.

Grading:

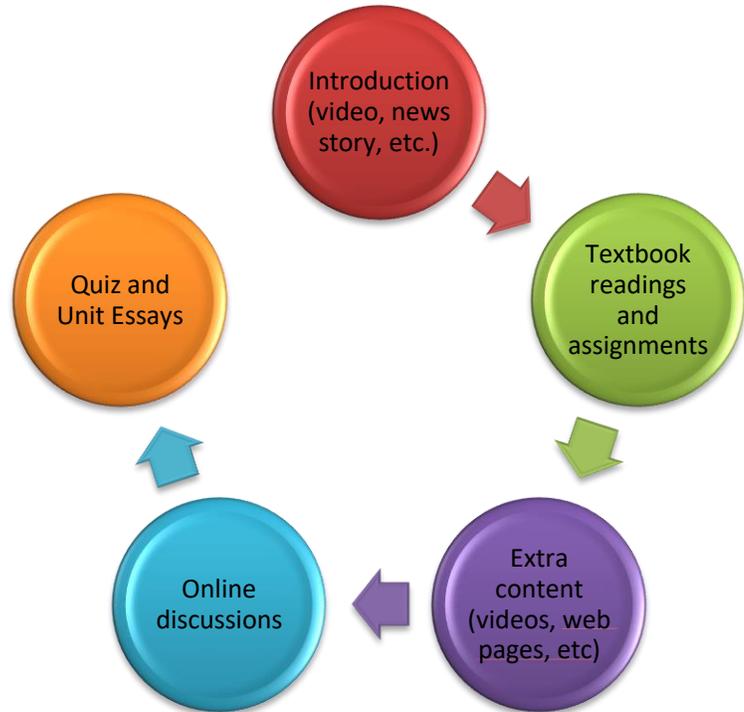
Semester grades will be based on student performance as described below:

	Percentage	Letter Grade
Final Exam	10%	93 - 100% A
Unit 1 assignments.....	6%	90 - 92% A-
Unit 2-5 assignments (4 @ 12% each)	48%	87 - 89% B+
Quizzes (5 @ 2% each).....	10%	83 - 86% B
Textbook homework.....	16%	80 - 82% B-
<u>Online discussions (participation grade).....</u>	<u>10%</u>	77 - 79% C+
Total:	100%	73 - 76% C
		70 - 72% C-
		67 - 69% D+
		63 - 66% D
		60 - 62% D-
		<60% F

Late assignments: This is a condensed semester, so late work will be penalized as follows: 1 minute – 24 hours late = one letter grade deduction; 24-48 hours late = 2 letter grades; Items over 48 hours late will not be accepted.

Learning units

The class will be divided into learning units. For each unit, students will complete the activities described in the graphic to the right. Details about each element are provided below. The class discussions will be graded by participation. Here, the goal is for students to work with one another to help improve everyone's understanding of the material.

**Unit 1: Course mechanics & expectations (due Dec 19th)**

Rationale: This unit will help students understand how the course will operate, and what to expect during the semester. Students should read the

syllabus and a supplement on plagiarism, and complete an online quiz and plagiarism assignment. All students must complete and pass these assignments before advancing to other material. Students should repeat until they earn a perfect score.

Readings: Syllabus

Supplements: Plagiarism document & links

Video(s): Textbook publisher's how-to video for creating an account

Assignments – Set up textbook account; Complete introductory textbook assignment; Introduce yourself on blackboard; Plagiarism assignment on blackboard

End of unit: Blackboard quiz by 11:59pm on 12/19

Unit 2: Ecology (due Dec. 24th)

Rationale: The science of Ecology provides the basis for understanding Environmental science (much like the sciences of anatomy and physiology provide the basis for understanding medicine).

Readings: Textbook Chapters 1-4

Video(s): TED talk by Jared Diamond on societal collapse, others TBA

Supplement(s): Robert Krulwich's NPR news story on Easter Island and Polynesian Rats

Assignments: Chapter quizzes (textbook site); blackboard quiz

End of unit: Essays

Unit 3: Human population & Agriculture (due Dec 29th)

Rationale: How many people live on earth? How many people can the earth support? What differences exist between nations today?

Readings: Textbook Chapters 6-7

Supplements: GapMinder World video presentations

Assignments GapMinder assignment to analyze environmental health in various nations and in US States

End of unit: Production and analysis of graphs

Unit 4: Atmosphere & Global Warming (due Jan 2nd)

Rationale: Earth's atmosphere is vital for life. And human activity has altered the atmosphere in profound ways. How has the atmosphere been altered, and what effects have resulted? How can we limit damage caused by atmospheric pollution?

Readings: Textbook chapters TBA

Supplements: TED video by James Hansen; others TBA

Assignments: GAPminder assignment on carbon emissions over time, by nation

End of unit: Essays

Unit 5: Sustainability (due Jan 5th)

Rationale: Ultimately, the goal of Environmental Science is to provide the information necessary for humans to live within the means of our earth. Sustainable living is that which does not draw more resources from earth than it can provide indefinitely.

Readings: Chapters 1, 15, 16, epilogue

Supplements: TBA

Assignments: TBA

End of unit: Essays

For each unit, materials, rubrics, more details, and links will be posted in a folder on blackboard, in the "Unit Assignments" section. Below is a description of some of the assignments that will form the basis for students' activities in the class.

Homework will be available on www.masteringenvironmentalscience.com. Homework assignments will be based on textbook chapters, one homework assignment for each chapter we will read from the textbook. The homework will mainly consist of multiple choice questions. Each homework question may be attempted up to 6 times (unless there are fewer than 6 options, in which case it may be attempted until there are no more options available). Homework is scored based on number of attempts needed to get the correct answer (more attempts = lower score). Some questions have hints. There is no penalty for using a hint, but there is an incentive for not using a hint – unopened hints will add 2% to your score.

Quizzes: Quizzes will be administered through blackboard. During each quiz, students may use their notes, textbook, or any other material available to them. Students may not ask other people for help during the quizzes. Students will have the opportunity to repeat blackboard quizzes up to 3 times, and the highest score will count toward their grade.

Essays: Students will write essays for some units to demonstrate their understanding of the important concepts of each unit. Prompts, details about the length, grading rubrics, and other aspects of the essays will be available as the units are unveiled on blackboard. Students will submit their unit assignments, including essays, as an email attachment to jpposton@catawba.edu

Final Exam: The final exam will be administered via Blackboard. It will be available for 48 hours. Students may use their notes, textbook, and other sources during their exam. Students may not ask other people for help, however. The final exam will be **Jan 4th – 5th**

Online discussions: Students are expected to participate in online discussions via Blackboard.

There will be a new thread each Monday and Wednesday. The thread will include a prompt based on the current unit, a link to a short video or website, or other content. Each student should post their “**reaction**” to the content. What do you think about the material? What questions do you have? Reactions are due by midnight each day (M and W). By the end of the following day (Tuesday or Thursday), each student should post a **comment** to the reactions of two classmates. Comments are also due by midnight, (on Tuesday and Thursday). So, you will be involved in Blackboard discussions every Monday, Tuesday, Wednesday, and Thursday. Reactions and comments should be **original** and **thoughtful**.

Note: information contained in this syllabus is subject to change as the semester proceeds.