

Principles of Environmental Science

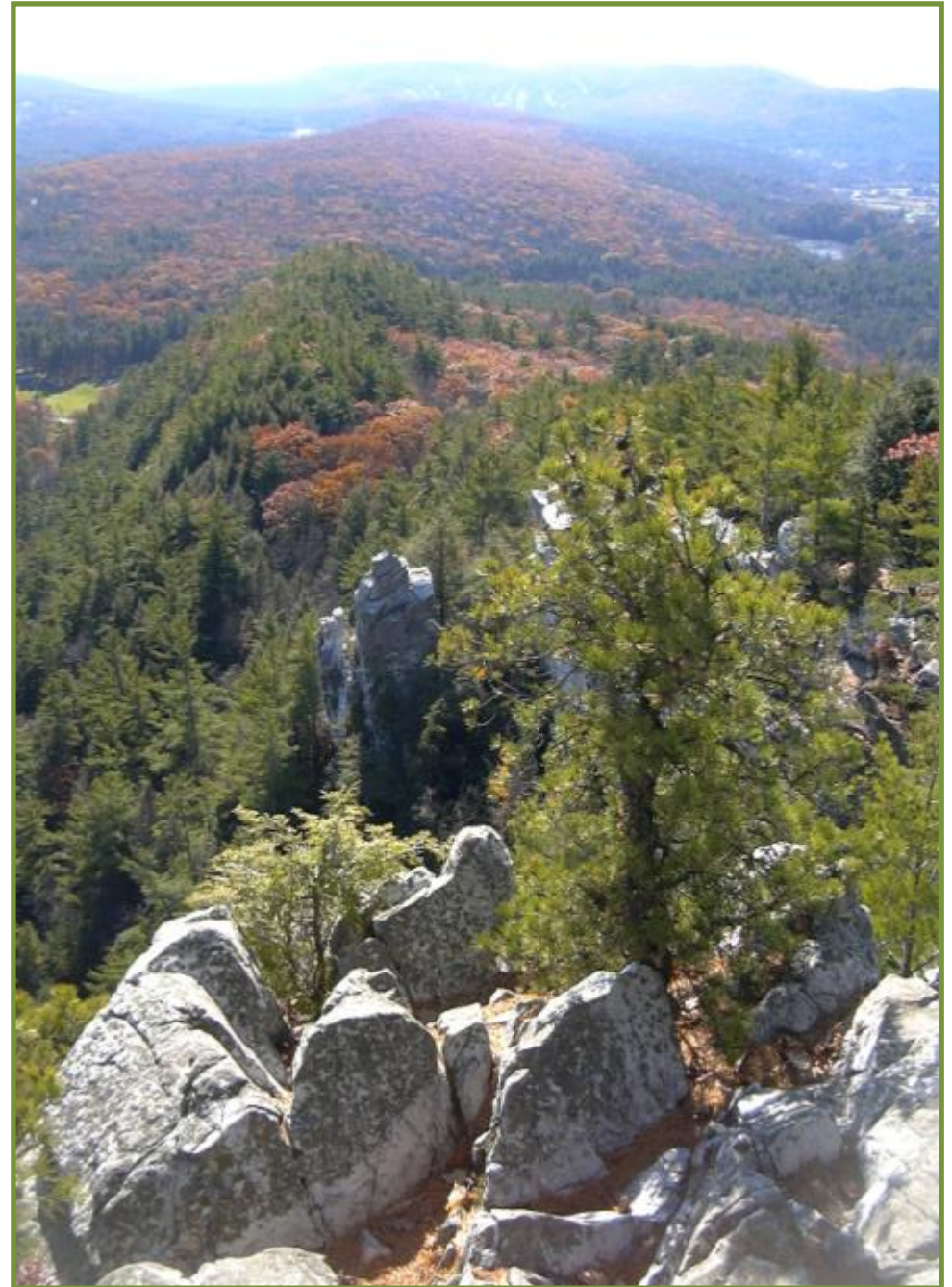
is a CORE Science Class that is taught online. You'll learn how our environment works and how your actions - things you buy, things you do, things you eat - affect the environment. You'll learn about how science works, the basics of ecosystems, water, energy, the human population, renewable and non-renewable resources, **how to protect yourself and your (future) family** from environmental hazards such as mercury (in seafood), lead (lead paint in houses), Radon (in your shower!), BPA (in plastic bottles), and the like. In this fast paced class you should expect a LOT of reading, writing, thinking, and investigating.

Text: To save money we'll use a slightly older version of *Essential Environment* by Withgott and Brennan. Get the 3rd or 4th edition, which will cost between \$11 and \$23.

Writings: After reading the book and learning about some aspect of the environment, you'll use your knowledge to address some question that I pose, posting your thoughts online. Other students will read your post and comment on it; you'll read theirs and comment.

Readings: You'll read a chapter a week - about 45 pages, and take a short quiz to make sure you've mastered the concepts.

Hands-on Assignments: I think you learn best by doing, so most weeks there will be some hands-on project.



Earn class credit by experiencing the environment! For example, hiking and writing about **Monument Mountain** counts for 10 points!

The Extra Mile I want you to get out in the world, experience the environment, and enrich your life. Even though this isn't a lab course, I think you need to "get it on you." To encourage this, you're **required** to do an "Extra Mile" assignment each week. For the course, you're required to do 50 points (about 5 a week, but you can do more or less on any given week). However, you can earn up to a maximum of 75 points (i.e., 50 of which are regular credit, 25 would be **extra credit**). You must keep a Word file with the evidence of your efforts, which I'll collect and grade at the end of the course. Each activity must be documented and carefully labeled with the total deserved credit. Generally, you'll do the activity, and write a short reflective paragraph on what it was about, what you learned, how it connects to the concepts of the course, etc. You might want to embed pictures in the document. Sloppy, weak work will receive no credit. You may not receive credit for activities you do as part of a class assignment for this or any other class. **You may not count activities that you did before this semester started** (like that Christmas break trip to the islands). This will be due the last week of class. Here are some examples, there are more in the course syllabus, and maybe you can think up some of your own:

- Participate in a River Cleanup 10 each
- Visit a state park and report 10 each
- Visit a national park and report 20 each
- Visit another country and report 20 each
- Visit a museum, (report) 10 each
- Visit a zoo, (report) 10 each
- Go to any Trustees of Reservation Property 10 each
- Drive, walk, ride, bike to another state (report) 3 each state
- Take an overnight camping trip (report) 10
- Go rock climbing r&r 10
- Plant a garden r&r 10
- Install a low-flow shower or toilet 10
- Take a day hike (more than 3 miles) report 10
- Attend a guest lecture (details later) report 10

Topics

The schedule will depend a bit on what happens in the world, but here are some of the topics we'll cover:

- Introduction to Environmental Science;
- Environmental Economics and Environmental Policy
- Environmental Systems: Chemistry, Energy, and Ecosystems;
- Evolution, Biodiversity, and Population Ecology;
- Species Interactions and Community Ecology
- Human Population;
- Soil, Agriculture, and the Future of Food
- Cities, Forests, and Parks: Land Use and Resource Management;
- Fresh Water, Oceans, and Coasts
- Nonrenewable Energy;
- Renewable Energy;
- Global Climate Change
- Environmental Health and Toxicology;
- Waste Management
- Sustainable Solutions

Grading	Postings	400
	Homeworks	400
	Quizzes	200
	<u>Extra Mile</u>	<u>50</u>
	Total	1050

I think this is the most valuable course you can take during your academic career.

For more information or if you have any questions, contact:

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