Sample Course Syllabus

The Earth Around Us: An Introduction to the Geology of Environmental Issues
to accompany The Earth Around Us: Maintaining a Livable Planet

The following syllabus was developed for a freshman course whose goal is to teach students the geology of environmental issues and to attract them to geology as a course of study. The course is built around the book The Earth Around Us: Maintaining a Livable Planet (Westview, 2003). The book consists of short, readable essays that provide solid grounding in the geology of environmental issues. The book offers an alternative to traditional geology texts that may be somewhat dry to read. The syllabus could be used for a large lecture course or for a writing-intensive freshman course. Feel free to use the syllabus for your course if you would like to do so (you may email schneiderman@vassar.edu to have a copy sent electronically).

Geology 100/ Environmental Studies 100
Syllabus

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COURSE OBJECTIVES
In this course we will examine environmental issues from a geological perspective. That is, through a series of lectures on subjects either historical or contemporary and at local, regional, or global scales, you will become acquainted with the 21st century environmental issues—and the earth science behind them—of which every citizen of this planet needs a working knowledge. You will learn the geological principles that affect the atmosphere, hydrosphere, biosphere and rock sphere. Also, you will come to understand that a little bit of knowledge about how the earth works can go a long way towards formulating sensible environmental policies and responses to natural ‘hazards.’ Upon completing the course you should be able to judge for yourselves the presence or absence of geological common sense behind human actions on this planet and to use your new knowledge to influence future land-use decisions.

COURSE STRUCTURE
In general, I will cover a new topic each class session. Often there will be a video at the beginning of class followed by lecture, questions, or discussion. I expect that the reading for each class will be done before the class for which it is assigned. On Thursday I will take a few moments of class time to review answers to the weekly homework. Course information including syllabus, reading assignments, links to websites, week-by-week guide to the course, and review questions for class sessions are available on our Blackboard internet site. Please note that our Blackboard course site also contains a discussion board on which you can post thoughts about the readings or subjects raised in class.

READING
Readings for the course will come from the following book: Schneiderman, Jill S., ed., The Earth Around Us: Maintaining a Livable Planet (New York: W.H. Freeman, 2000). I expect that the reading for each class will be done before the class for which it is assigned.
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<thead>
<tr>
<th>Date</th>
<th>Subject</th>
<th>The Earth Around Us</th>
<th>Web reading</th>
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<tbody>
<tr>
<td>Week 1 T</td>
<td>Introduction to the course</td>
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<td>Week 1 Th</td>
<td>Our place in earth’s history</td>
<td>Preface</td>
<td>“The Dawn of Animal Life” <a href="http://geol.queensu.ca/museum/exhibits/dawnex.html">http://geol.queensu.ca/museum/exhibits/dawnex.html</a></td>
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<td>Essay 1 (Kieffer)</td>
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<td>Week 2 T</td>
<td>Geologic time</td>
<td>Essay 2 (McPhee)</td>
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<td>Essay 9 (Gould)</td>
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<td>Week 2 Th</td>
<td>Ethical considerations</td>
<td>Essay 3 (Savoy)</td>
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<td>Essay 8 (Fisher)</td>
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<td>Week 3 T</td>
<td>The limits of knowledge</td>
<td>Essay 5 (Bjørnerud)</td>
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<td>Essay 6 (Oreskes)</td>
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<td>Week 3 Th</td>
<td>Managing the landscape</td>
<td>Essay 7 (Eaton)</td>
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<td>Essay 10 (Applegate)</td>
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<td>Week 4 Th</td>
<td>Water quantity</td>
<td>Essay 13 (Sharp and Banner)</td>
<td>“How We Use Water in These United States” <a href="http://www.epa.gov/OW/you/chap1.html">http://www.epa.gov/OW/you/chap1.html</a></td>
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<td>Video: “Cadillac Desert: The Mercy of Nature” (55 minutes)</td>
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<td>Week 5 Th</td>
<td>Water quality</td>
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<td>Video: “The Fight for the Croton Watershed” (28 minutes)</td>
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Week 6 T  Coasts
Video: “The Beaches are Moving”
(60 minutes)

Week 6 Th  Coasts
Essay 15 (Payne)  “Beach Erosion”
Essay 16 (Pilkey et al.)  http://whyfiles.org/091beach/index.html

Week 7  SPRING BREAK

Manipulations and Possible Solutions?

Week 8 T  Internal waterways and dams
Video: “Cadillac Desert: An American Nile” (55 minutes)

Week 8 Th  Internal waterways and dams
Essay 17 (Singer)  “Cracking Dams”

Week 9 T  Wetlands
Essay 18 (Stewart)

Week 9 Th  Soil and water contamination
Essay 19 (Doss)
Essay 20 (Manduca)
Essay 21 (Gwinn)

Week 10 T  Radioactive waste
Video: “Radioactive Reservations” (Part 1) (approx. 20 minutes)
Essay 22 (Macfarlane)

Whole Earth Perturbations and Global Perspectives

Week 10 Th  Climates of the past
Essay 24 (Stanley)
Essay 25 (Menking)

Week 11 T  Changing our atmosphere
Video: “The Greenhouse Effect & Global Climate” (30 minutes)
Essay 26 (Nameroff)
Essay 27 (Hornung and Downham)

Week 11 Th  Environmental justice
Essay 29 (Schneiderman and Sharpe)
“Unsung Sheroes and Heroes”
http://www.ejrc.cau.edu/(s)heroes.html

Week 12 T  Listening to the earth
Essay 28 (Baker)

Week 12 Th  Limits to sustainability
Essay 30 (Zen)

Week 13 T  How shall we live?
Essay 31 (Buchwald)
“The Earth Charter Initiative”
http://www.earthcharter.org

Week 13 Th  Review for final exam