



Environmental Issues

“The ‘control of nature’ is a phrase conceived in arrogance, born of the Neanderthal age of biology and philosophy, when it was supposed that nature exists for the convenience of man.” - Rachel Carson

ENVS 201 GEOG 206 Spring 2015

Building, Room Number, and Time: SCHU 200 1:00-1:50pm

Instructor: Dr. Tracy H. Allen, Department of Geography Chair and Associate Professor of Geography and the Environmental Sciences Program
Office: 317B Milne Library, Department of Geography
Office Hours: M 2:00-3:00pm & T 11:00-12:00 or by appointment, or if my door is open, come in. If you need to see me I will be available. Office hours are for you!
Phone: Office - 436-3152; Department of Geography: 436-3459
E-mail: allenth@oneonta.edu
Course Website: <http://employees.oneonta.edu/allenth/>

Required text and additional readings:

Withgott, J. and Laposata, M. 2012. *Essential environment: The science behind the stories*. Fourth Edition. San Francisco: Pearson Education, Inc.

Additional readings will be posted to the course web site, or copied and passed out during class, or will be placed on electronic reserve at Milne Library. Stay current with your readings.

Emergency Evacuation/Shelter-in-Place Procedures: In the event of an emergency evacuation (i.e., fire or other emergency), classes meeting in this building are directed to reassemble at the IRC Lobby so that all persons can be accounted for. Complete details of the College’s emergency evacuation, shelter-in-place and other emergency procedures can be found at <http://www.oneonta.edu/security/>.

Course Description and Purpose:

There are no simple solutions for any environmental issue. This course will provide students with knowledge on a broad spectrum of environmental issues having multidisciplinary, local, and global implications. It will explore how humans interact with and impact the Earth’s natural environment, and examine our role as “responsible stewards”. As stewards, it is incumbent upon each of us to work toward environmental sustainability. While there are many environmental problems, this course will focus on the issues that have clear linkages to people's daily life. Selected topics will build a foundation by which other environmental dilemmas might be analyzed. The course is organized by four major topic areas and each area is developed via numerous specific environmental issues. The major topic areas are: understanding environmental issues, fundamental causes of environmental problems (population, industrialization, and energy), understanding and protecting natural environments, and polluting primary resources.

Course Specific Student Learning Outcomes:

- 1) Develop a broad and interdisciplinary understanding of earth’s natural systems and the ways in which humans interact with those systems, at local, regional, and global scales.
- 2) Acquire a depth of understanding of major environmental issues in their theoretical and applied dimensions.
- 3) Learn specific techniques and practices needed to effectively investigate environmental issues.
- 4) Understand how to identify and develop appropriate interdisciplinary solutions for environmental issues.
- 5) Demonstrate the ability to discuss, debate, and explore complex and often controversial ideas in different scientific formats.

Grading Criteria:

Work Completed	Possible Points	Grading Scale
Homework (4 short assignments)	10	200 - 185 points = A
Fieldtrips (2 fieldtrips based on attendance, discussion, preparation, completion of work)	10	184 - 180 points = A-
Article Review on “Tragedy of the Commons”	10	179 - 175 points = B+
Poster Project on a Current Environmental Issue (Poster: 20, Presentation 5, and Annotated Bibliography 15)	40	174 - 165 points = B
First Exam	40	164 - 160 points = B-
Second Exam	45	159 - 155 points = C+
Third Exam	45	154 - 145 points = C
200 Total Possible Points		144 - 140 points = C-
Extra Credit: Essay on any local environmental issue	Maximum 5 points	139 - 135 points = D+
		134 - 125 points = D
		124 - 120 points = D-
		119 - 0 points = F

Homework and Participation:



You will have four homework assignments to complete from your textbook readings. The questions will keep you on task with your course readings. You will complete the homework assignments on Blackboard. There are several class periods where you will participate in an in-class recitation and discussion. Unfortunately, the large size of the class and the limitation of the room itself will hinder classroom-wide group presentations and debates covering issues discussed in lecture. The discussions will be in a small group format and designed to put you in touch or give you a hands-on application of materials covered in class. I believe the best way to learn is by doing. The discussion will allow you to deeper explore lecture topics. Most environmental issues are quite controversial; thus, I expect discussion to be heated. You will be expected to prepare in advance for some discussions - i.e., read an assigned article. I will let you know which discussions require preparation. Points awarded for the

discussion will largely be based on attendance. It is in your interest to come to class. If you miss the discussion, you can’t make up the points.

Fieldtrips:

There are two mandatory fieldtrips in this course. As soon as it warms up outside, we will take a walk around campus to explore the degree to which SUNY Oneonta is an environmentally sustainable campus. The field



Brownfield's punctuate the landscape and force us to see waste for what it is - pollution

experience will cover the following sustainability initiatives: e-waste station, compost system, solar instillation, single stream recycling, dining services, LEED building, water bottle refill stations, LED lighting, heating, Energy Star buildings, and stormwater runoff (rain garden and retention basins). Our second in-class fieldtrip will be to Hunt Union Pond to learn about water quality. The persistent pollution and eutrophication of Hunt Union Pond is a local environmental issues with global applications. You will be required to complete an exercise for each fieldtrip. If you do not attend the in-class fieldtrips you will not be able to complete the exercises and no points will be awarded.

Article Review:

You will review the classic environmental article "Tragedy of the Commons" by Garrett Hardin. The ideas promulgated in the article can be applied to many of the pressing environmental issues that we face today. The review must

consist of three parts: 1) a summary of the central theme and main points; 2) a strengths and weaknesses discussion (do not say it was hard to read, or the words were too big, or it was hard to understand, rather focus on how Hardin's ideas were both correct and incorrect from the hindsight perspective of nearly 50 years later (with examples): base your points on direct evidence from the article); and 3) **a series of three questions relevant to the article.** The questions will be used to prompt classroom discussions. Think of good questions, because you will be called upon to answer the questions in front of your fellow classmates. The review should be two typewritten, double-spaced pages in length. Do not use a font with a point size greater than 12, and all margins should be set to one inch. Do not widen the spacing between sentences and paragraphs.

Poster Presentation and Annotated Bibliography (see the detailed directions for this project on the Environmental Issues homepage):

Topic: This project will allow you to create a poster and annotated bibliography on a specific environmental issue. Students should realize the vast number of environmental issues that exist, but the poster must only focus on one. While you may choose a topic of your liking, it must be approved. I am looking for focused environmental topics. Your poster must clearly and concisely cover the issue. By focusing your topic you guarantee that it can be adequately covered in a poster format. Example environmental issues that are focused and can be adequate covered in a poster format may include: Habitat fragmentation and population decline of the Karner Blue butterfly; Japanese knotweed as an invasive species; PCBs in the Hudson; or, the controversy of "Clean Coal"... (see "Environmental Issues Potential Poster Topics" on the Environmental Issues homepage for more topic ideas) There are two methods to create focus: by region or narrow subject matter. A topic on global warming is too big, but an issue on global warming and its impacts on marine wildlife refuges of Hawaii is focused. By selecting a small and specific region, the topic is narrowed. An environmental issue, such as the burn barrel ban, is smaller and may well be covered because the subject matter is more specific. You may not select a topic that I covered in detail in class. If an in-class topic interested you, modify it and ask for approval.

Poster: Include a purpose statement, introduction and conclusion. Sell your point of view – be creative. Consider all side of the issues. For some broader topics, a case study is appropriate. The poster will address: **1) what is the issue (what's the problem); 2) why is it important; 3) how is the issue solved; and 4) what are your major conclusions** (no more than three). The poster should be neat and attractive. Text and flow diagrams should be included, but do not write a paper. Be brief, yet cover the issue. Shoot for approximately 900 - 1000 words on the poster - the equivalent of about 1.2 pages of single spaced text. Text outside of this

word count will lead to a loss of points. Text should be in at least 20 point font. You must professionally print your poster. **For optimal learning you must work in groups of two.** No groups larger than two are allowed. The poster can be printed on campus through Academic Information Technology Services. Call the Help Desk at extension 4567 and schedule a time to print the poster. If you do not make an appointment, they will not print your poster. It may take a week to print the poster. Plan accordingly. The cost to print a color poster is .50 per inch on the smaller printer. Depending on the size you select, your poster will cost between \$20 and \$40.

Presentation: Presentation order will be assigned randomly. Student Poster Presentations are scheduled for 4-27-15 at the Waterfront room in Hunt Union, 6:00-9:00. You must attend. The poster presentation format is like that of a professional meeting. Please be professional and dress accordingly. The poster and annotated bibliography are due the day you present. You must be able to clearly explain your poster to me. Start by stating your poster title and purpose. You will be graded on how well you convey the information on the poster. The presentation will address: 1) what is the issue (what's the problem); 2) why is it important; 3) how is the issue solved; and 4) what are your major conclusions (no more than three). Be prepared. This is a very big class, so presentations have to be short and concise. I know the issues and will quickly judge whether or not you adequately researched the project. Presentations will only last 5 minutes with an additional 45 seconds for questions. Both group members must talk. You will be timed. One person must be at their poster at all times. The event will be open to the public. After the presentations, I will read and grade your posters.

Annotated Bibliography: The annotated bibliography must be on the same issue as your poster and must be the source material from which the poster was created. **It will consist of 14 annotated entries.** The annotated bibliography allows me to know the degree to which you researched the poster. Overusing one or two sources to create a poster does not permit good poster insight and development. So, develop an in-depth bibliography on the topic. **The annotated bibliography consists of three parts: 1) the bibliographic entry cited in a correct format (APA, MLA, Chicago...); 2) summary of the articles main theme (at least 4 typed lines as a standalone paragraph); and, 3) a detailed summary of the importance of the article to your topic (at least 14 typed lines as a standalone paragraph).** Why did you use this source? In total, each entry should be at minimum 18 typed single-spaced lines in length. Your summary and importance of article statement will be at least this long for each entry. At least two of the entries must be taken from a journal. **Bold the two journal bibliographies,** so that I can easily find the entry. The annotated bibliography portion of the project and the presentation are due on the same day. After presenting your poster, hand me the annotated bibliography, otherwise it is late. Do not turn in two annotated bibliographies that consist of seven entries each (your half of the assignment). Turn in one annotated bibliography with 14 entries. Organize the bibliography alphabetically by the author's last name. **Single-space** the entire bibliography and do not use a weird font or a point size larger **than 12.** Margins must be set to one inch on all sides.

Exams:

There are three exams in this course. Exams will cover information discussed in class and text material. If you do not come to class, you will not do well on the exams. 80% of the exams' content will be taken directly from your class notes. Each exam will be incrementally more difficult. Exam One is the easiest and the final is the most difficult. I will not allow you to make up an exam that you missed unless you received my permission prior to the date and time of the regularly scheduled exam. If you wish to take an essay exam, let me know.

As energy demands continue to rise, offshore windmills such as these off the coast of England may well be in New York's future.



Extra Credit - Local Environmental Issue Essay:

Identify, examine, and offer possible solutions to a pressing or potential environmental problem facing your hometown or county (i.e., coal tar threat to Oneonta groundwater). Check local papers for such issues. The paper should consist of three distinct parts: identify the problem, insightfully examine the problem, and offer possible solutions. Include at least **two** sources supporting your statements (all the sources do not have to directly address the local area; rather, it might address a similar issue in a different locality and be applied). The bibliographic information from the source must be included. The essay must be at a minimum 1.5 pages, typed, and **single-spaced**. Do not use a font with a point size greater than 12, and all margins should be set to one inch. Do not widen the spacing between sentences and paragraphs. A well-written essay may receive the maximum of five points added to the final grade for the course; for example, a final grade consisting of 174 points may become 180, which would equate to an "A-" grade in the class. Failure to follow these instructions will result in no points awarded.

Policies:

Exams: If you miss an exam, I will not allow you to make up the work unless you have written proof that adequately validates your absence. Only under "dire" circumstances (as to what "dire" constitutes, this will be decided by the instructor on an individual basis) will exams or quizzes be accepted after the assigned date. **If you do not talk directly with me, call, or leave a voice mail prior to missing an exam or quiz, I will not allow you, under any circumstance, to make up the work.**

Assignments: All assignments must be **completed**. If you hand in an assignment late and after the said assignment has already been graded and passed back to the class, **I will not accept it**. If you miss a lab/recitation that requires an in-class group discussion, the best grade that you can receive on the assignment is 80%. Make arrangements with me **early** if you anticipate missing an important class activity. All assignments that need to be picked up late will require you to come to my office. I will not bring extra copies to class the following class period. If you miss class, come to my office to pick up the assignment.

Academic Dishonesty Policy - (Plagiarism, Cheating...) Know the college policies regarding plagiarism and cheating - "Academic dishonesty is defined by SUNY Oneonta as any act by a student that misrepresents or attempts to misrepresent to an instructor or any College official, the proficiency or achievement of that student or another student in any academic exercise, or that is intended to alter any record of a student's academic performance by unauthorized means. A student deemed guilty of an academic dishonesty may, depending on the nature of the offense, be subject to one or more of the following measures: failure of the assignment or examination, failure of the course, or dismissal from the College." Plagiarism - With the Internet it is easy to copy and paste other people's work into your own assignment. This is stealing and is unethical. When I read something that appears out of sync with your writing style, I do check for plagiarism. Students that feel they must stoop to this level of misrepresentation will earn a failing grade in the course. Academic dishonesty on an any exam, assignment, paper, or project will result in a 0-failing grade for the course and the College's Judicial Affairs office will be notified.

Return Policy: Because I expect you to take exams quizzes and assignments on time, I hold myself to the same standards. I will always return your work promptly.

Classroom Policy: I expect general rules of etiquette and respectful behavior to be followed. Be respectful to me and your fellow students. If you plan to talk during lecture, mumble so that no one can hear you. If I can hear your conversation, I will stop class and ask you to speak such that the entire class can hear - after all, the conversation "must be" important. No eating meals in the classroom (it makes me hungry). Never put your notebook and texts away before you are dismissed. I always end class on time.

E-mail Policy: I receive many e-mails from students. Occasionally I will miss your email. Don't be offended. If you have an issue that you need to discuss, make the effort to meet with me in person either before or after

class, during office hours, or anytime that the door to my office is open. **I will only discuss grades in person, NOT via e-mail or phone.** This is college policy. The college will notify you with your final grade.

Cell Phone, Laptop, and Headphone Policy: There are too many phones in the classroom creating many interruptions and distractions. You may carry your phone or musical device into class; however, you may not use it. Keep it out of sight at all times. Do not talk, text, Tweet, FaceTime, Snapchat, play games, check email, surf the net, take pictures, play music, or otherwise use your phone in any manner while in class. In the event that you should receive a text or call in class, be certain that the device is silenced. **No texting under any circumstances.** Texting is extremely rude and disruptive. If you use your phone in class in any way, I will give the offending student one warning. Second time offenders will be removed from the course for one day. Third time offenders will be permanently dismissed from the course and assigned a failing grade. A phone in use during an exam will result in dismissal from the class and a 0 grade on the exam. Use your laptop only to take notes. If you violate this policy, you will not be able to bring the laptop to class again. Do not wear headphones in the classroom. Put them away.

Attendance, Participation and Tardiness Policy: Regular attendance is expected and necessary. My lectures come from a variety of sources. If you do not come to class, it will be impossible to do well on the exams. Do not catch up on your sleep in my class. I work hard to bring you the best lecture possible. Sleeping during lecture is extremely rude and results in deducted participation points. You should keep up with the lectures and the reading, as the materials will be strongly cumulative. To make this a better class, your individual insight, feedback, and participation are necessary. Throughout the term, I reward students who come to class with bonus points or hints on potential exam questions. Please let me know if you are having any problems with the material. Always arrive on time or let me know if you plan to make class late. Late arrivals disrupt class. Being tardy multiple times will result in expulsion from the class. Do not leave class in mid-lecture unless you really have to (with prior permission). It is very bad-mannered and disruptive to walk out of class. Never put your notebook and texts away before you are dismissed. I always end class on time. I look forward to meeting with you and having an enjoyable term.

Words of enlightenment:

“Live simply that others may simply live.”
- Ethical injunction

“This living flowering land is all there is, forever...”
- Gary Snyder in Turtle Island (my favorite)

World-wide practice of conservation and the fair and continued access by all nations to the resources they need are the two indispensable foundations of continuous plenty and permanent peace.” - Gifford Pinchot

“...in wildness is the preservation of the world...When I would re-create myself, I seek the darkest wood...I enter as a sacred place a Sanctum sanctorum. There is the strength, the marrow, of Nature. In short, all good things are wild and free.” - Henry David Thoreau

“The clearest way into the universe is through a forest wilderness.” - John Muir, an American Conservationist

“We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect.” - Aldo Leopold, A Sand County Almanac

I look forward to meeting with you and having an excellent term.



Course Outline and Schedule: I will try to keep to this schedule, but some changes are inevitable.

Week	Topic	Readings
Week 1 1/21	<p><u>Part 1 - Environmental Issue: Understanding Environmental Issues</u></p> <p>Introduction to Environmental Issues course. Overview of selected environmental issues. To understand environmental issues consider: science, policy, ethics, economics, geography... systems; competing perspectives... In this class, all issues will end with a discussion on solutions.</p> <p>Class Discussion: What is the most pressing environmental issue today? Why? What is environmental sustainability? Is SUNY Oneonta a sustainable campus?</p>	Text: Chapter 1 Text "Sustainable Solutions" pages 414-418
Week 2 1/26	<p>Overview of selected environmental issues continued...global distillation effect, timber clear-cutting, wolf reintroduction, elk reintroduction to NY, ecotourism, pesticides, toxic waste storage, landfills, acidification, environmental justice and sun vs. shade grown coffee, declining number of song birds, sustainable coffee in Guatemala, GM foods (salmon), Be aware of the myriad of environmental issues.</p> <p>Class Discussion: Do you support elk reintroduction to the state of New York?</p>	Text: Chapter 5 Text pages: 150-152 -"GM Foods"
Week 3 2/2	<p>Complete selected environmental issues; Managing our garbage. The voyage of the Khian Sea; solid waste & consumption; disposal methods from around the world; NY's barrel ban, e-waste... The great garbage patch. Waste solutions!</p> <p>Class Discussion: Discussion planned & perceived obsolescence in e-waste. Are landfills the answer to waste management? Film on Friday – Rachel Carson's "Silent Spring".</p>	Text: Chapter 17 Article: "Environmental Collapse of Easter Island" - Jared Diamond
Week 4 2/9	<p><u>Part 2 - Environmental Issue: Fundamental Causes of Environmental Problems – Population, Industrialization, and Energy</u></p> <p><i>Population:</i> Biological and physical controls on population growth. Environmental collapse: Easter Island as a metaphor and lessons learned. Overpopulation impacts: water, deforestation, and loss of biodiversity.</p> <p>Class Discussion: Could the environmental collapse on Easter Island be prevented. Article review and questions are due on Friday, 2/13. "Tragedy of the Commons" Prepare 3 discussion questions pertaining to the article and turn in your review.</p>	Text: Chapter 3 Article - "The Tragedy of the Commons" - Science, Garrett Hardin
Week 5 2/16	<p>The science of population growth. Population ecology. Per capita/total change and resources. Demography. Population histograms. Consumption overpopulation.</p> <p>Class Discussion: Is limiting population growth a key factor in protecting the global environment?</p> <p><u>First EXAM on Friday, 2-20-15</u></p>	Text: Chapter 6
Week 6 2/23	<p>Population case study - China. Overpopulation, philosophies, policies, and solutions.</p> <p><i>Industrialization</i> as a Fundamental Cause of Environmental Issues. "Endangered Planet - The Environmental Cost of Growth". Landmark case studies from: China, Europe, New York (Love Canal) Class Discussion: What are the merits of industrial ecology?</p>	Reading 1 Text: Chapter 13; Reading 2 Text: Chapter 14; Reading 3 Article: "Industrial Ecology: From Theory to Practice" - Steven Peck
Week 7 3/2	<p>Case Study: Industrialization & Acid Rain in Adirondacks - Pollutants have trees screaming. EPA nitrogen oxide and sulfur dioxide emissions trading. National Ambient Air Quality Standards for 6 criteria pollutants. Solutions.</p> <p><i>Energy:</i> Class Discussion: Do increasing energy demands contribute to greater environmental problems? If so how? Is clean coal a myth? Nuclear energy, Chernobyl, and lessons learned? Disaster ecotourism?</p>	Reading 1 Text: Chapter 15 Reading 2 Article - "Acid Precipitation in the Adirondack Mountains" - D. Loki
Week 8 3/9	College closed! SPRING BREAK. Enjoy nature. Get warm. Have Fun. Get Out.	No Reading
Week 9 3/16	<p>Nuclear energy: wise alternative energy source or delusion? Renewable energy.</p> <p>Class Discussion: What is the future of nuclear energy in the US? What renewable energy sources are available today? Fossil fuel pollution in NY. Solutions. US and World installed wind capacity. The myths and facts of wind power (aesthetics, noise, property value, birds, bats, ice, lightning, climate change... Energy solutions in NY. Wind power in NY. (Steel Winds, Maple Ridge...)</p>	Text: Chapter 16

Week	Topic	Readings
Week 10 3/23	<p><u>Part 3 - Environmental Issue: Understanding and Protecting Natural Environments.</u></p> <p>Public scenic lands classification - wilderness, parks, monuments, rivers, wildlife refuges, reserves. Protecting and classifying public lands.</p> <p>Class Discussion: Do natural environments have intrinsic value? And, why do we need nature? Aesthetics, harmony, recreation, inspiration... measuring the impact of civilization.</p>	<p>Article 1: "The Value of Nature and the Nature of Value - Science, Daily et al.</p> <p>Article 2: The Value of the World's Ecosystem Services and Natural Capital - Nature, Costanza et al.</p> <p>Text: Chapter 9</p>
Week 11 3/30	<p><u>Second EXAM on Monday 3-30-15</u></p> <p>Oil or nature - the Arctic National Wildlife Refuge.</p> <p>Biomes and ecosystems of the Arctic. Four tundra ecosystems.</p> <p>Plant succession in the Arctic: primary, secondary and pioneer communities. How do plants adapt to cold arctic temperatures? Arctic biodiversity.</p> <p>Class Discussion: How do you weigh the potential for finding oil in ANWR against the value of wilderness?</p>	<p>Text: Chapter 4</p>
Week 12 4/6	<p>How much oil is in Section 1002? Why we should drill in ANWR. Oil in-place resource, technically recoverable and economically recoverable. Impacts from: seismic surveys (2Dvs 3D) vegetation, wildlife (muskoxen and polar bears) geomorphologic, drill platforms, pipelines, human population....with a focus on caribou feeding habits, breeding, migration, and disturbances. Solutions.</p> <p>Class Discussion: How does oil drilling impact vegetation and wildlife? What alternatives are there to an oil economy?</p>	<p>Arctic National Wildlife Refuge, 1002 Area, Petroleum Assessment, 1998, Including Economic Analysis</p>
Week 13 4/13	<p><u>Part 4 - Environmental Issue: Spoiling Primary Resources (Water & Land)</u></p> <p>Fieldtrip around campus: how environmentally sustainable is SUNY Oneonta?</p> <p>Dangerous Waters: State of the world's drinking water. The bottled water epidemic. Why are we fearful of tap water? Solutions to the world's drinking water problem.</p> <p>Discussion Question: How does "dirty" water kill millions of people every year in developing countries?</p>	<p>Text: Chapter 8</p>
Week 14 4/20	<p>What is Hypoxia? Hypoxia in the Gulf of Mexico. Selected water quality parameters: nutrient enrichment, sedimentation (turbidity), eutrophication. The world's largest dead zones.</p> <p>Class Discussion: Despite the Clean Water Act, is our water becoming more polluted? Explain. Solutions.</p> <p>Field trip to Hunt Union Pond: A short study in water use and quality (turbidity, nitrates, phosphates, pH, conductivity, dissolved oxygen...) and wetlands. Be certain that you are dressed appropriately. No whining.</p>	<p>Text: Chapter 12</p>
Week 15 4/27	<p>Comparative evaluation of fishery ecosystems response to increased nutrient loading. Organic waste. Sewage and salvation on the Ganges. Monitoring for pathogens. Patterns of Montane Forest Cover and Deforestation in the Kham Region of Eastern Tibet, China.</p> <p>Class Discussion: What type of environmental issues are associated with deforestation in Tibet? Extrapolate to local and global environmental issues.</p> <p>Student Poster Presentations: Monday 4-27-15 at the Waterfront Room in Hunt Union, 6:00 to 9:30. You must attend. This will be a professional presentation open to the public - dress accordingly. Turn in your poster and annotated bibliography at your presentation.</p>	<p>Article: "The Dead Zones - Oxygen-Starved Coastal Waters" - Joyce</p> <p>Article: Patterns of Montane Forest Cover and Deforestation in Tibet, China; - Allen</p>
Week 16 5/4	<p>Complete the deforestation case study. Exam Review.</p> <p>Study Day - No class: 5-6-15.</p> <p>Last day to turn in the extra credit: 5-4-15.</p>	<p>Revisit chapter 9 page 186-192</p>
<p>Third EXAM -- Date: Friday 5-8-2015 (same room) Time: 2:00pm to 4:30 pm</p>		