COURSE OUTLINE

Catalog #: SE15 (ENV115)  Professor: C. McCarthy
Course Title: Environmental Issues  Office: S-220
Sections #: 3251  Tel: 548-2668
Semester: Spring 2008  E-mail: mccartc@sunysuffolk.edu

Office Hours: Mondays: 2:00 – 3:00 PM
              Tuesdays: 9:30 – 11:00 AM
              Wednesdays: 2:30 – 3:30 PM
              Thursdays: 9:30 – 11:00 AM

Catalog Description

This course focuses on the cause and effect relationship of pollution and environmental degradation. Emphasis is placed on current environmental issues threatening the well-being of Earth’s ecosystems, natural resources and populations. Special attention will be given to Long Island’s environmental problems. 3 credit hours.

Note: SE15/ENV115 will not satisfy a laboratory science graduation requirement.

Course Objectives

The primary objective of the course is to use the classroom setting as a forum to discuss environmental issues, particularly regional ones, having an impact on the quality of the environment. Other objectives include integrating social, political, economic and etiologic factors into each of the environmental topics discussed.

During and upon completion of the course, the student will use reason and critical thinking to formulate opinions on a myriad of environmental problems. This will require the student to understand the scientific, social and ethical complexities of environmental problems and their solutions.

Procedures for Accomplishing Course Objectives

1. Classroom lectures
2. Class discussions
3. Student writings
4. Library and internet research
Student Requirements for Successfully Completing the Course

1. Attendance and punctuality
2. Satisfactory performance on exams
3. Participation in classroom discussions
4. Submission of Re-Op papers

Attendance

Regular attendance and punctuality are essential to complete the course successfully. If an absence should occur, it is the student’s responsibility to obtain missed information. More than one absence is excessive and could result in dismissal from the course.

Please keep your cell phone off during class!

Required Textbook and Reading Assignments


Additional readings will be in the form of handouts distributed in class.

Re-Op (Reaction/Opinion) Papers

Three (3) Re-Op papers on different environmental issues presented in the textbook are required. Papers should be approximately 3 pages in length, size 12-font, double-spaced and include the following:

- A description of the issue.
- An overview of the two opposing opinions.
- Your assessment of how well the authors present and support their positions.
- The opinion YOU agree with and why.
- Concluding remarks, e.g., Were you enlightened? Are there any recommendations you can make about the issue?
- Examples of critical thinking, organization, correct spelling and grammar.
- Required cover-page format (separate handout to be distributed in class).

Re-Op Paper Deadlines:  
#1……Monday, March 3rd  
#2……Monday, April 7th  
#3……Monday May 12th
Grading

90% of final grade........Average of three exams (all exams will be counted)
10% of final grade........Re-Op papers

Extra credit **will not** be given for additional writings.

Withdrawal from the course with a “W” is guaranteed only if a course withdrawal form is submitted to the Registrar Office prior to the mid-point of the semester. After the mid-point, a final grade of “F” will be given unless the student meets with me in person and submits to the Registrar Office a course withdrawal form signed by me.

Exam Schedule

First exam..........week #5 or 6
Second exam......week #11
Third exam........last class meeting
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<th>Week</th>
<th>Topic</th>
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| 1    | Distribution and review of course outline  
      | Environmental concerns of class  
      | Major causes of death worldwide and the U.S.  
      | The Precautionary Principle  
      | Environmental ethics |
| 2    | History of Pollution and Environmental Legislation  
      | - environmental conditions throughout civilization  
      | - environmental history of London and New York City  
      | - occupational health and safety: past vs. present |
| 3    | Offshore Pollution  
      | - history of dumping in N.Y. Harbor and Long Island Sound  
      | - Clean Water Act  
      | - London Convention  
      | - MARPOL Treaty |
| 4 – 5| Sewage Disposal and Treatment  
      | - septic systems  
      | - wastewater treatment facilities  
      | - environmental impacts of effluent and sludge  
      | - case study: Suffolk County’s Southwest Sewer District  
      | - alternative treatment methods |
| 6    | Solid Waste Management  
      | - landfills  
      | - recycling  
      | - composting  
      | - incineration  
      | - waste-to-energy facilities |
| 7    | Human Population Growth  
      | - dynamics of population growth  
      | - overpopulation and its consequences  
      | - regional population issues |
| 8    | Non-Renewable Energy  
      | - types, origins and reserves of hydrocarbons  
      | - environmental consequences of using fossil fuels  
      | - the Clean Air Act and the EPA point system  
<pre><code>  | - petroleum transport, spills and remediation |
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| 9    | **Nuclear Energy**  
- roles of the NRC and DOE  
- commercial power plant design and operation  
- weapons production facilities  
- radioactive wastes: types, disposal and storage |
| 10   | **Alternative Energy**  
- solar, wind, tidal, hydrogen fuel cells, etc.  
- LIPA and other regional initiatives |
| 11   | **Hazardous Industrial Wastes**  
- federal and state Superfund sites  
- remediation |
| 12   | **Acid Deposition/Precipitation**  
- causative air pollutants  
- precipitation scavenging in the atmosphere  
- ecological impacts  
- field observations  
- mitigation and air quality standards and legislation |
| 13   | **Global Warming**  
- greenhouse effect  
- natural and man-produced greenhouse gases  
- climate change and its impacts  
- sea level rise  
- Kyoto Protocol and other international initiatives |
| 14   | **Drinking Water**  
- sources of municipal, residential and bottled water  
- Safe Drinking Water Act  
- POE water purification methods |
| 15   | **Long Island Groundwater**  
- hydrogeology of Long Island  
- quantity and quality of drinking water supply  
- watersheds  
- point and non-point sources of contamination  
- Suffolk County Water Authority |