

EEES 3900, Environmental Readings and Communication (WAC)

3 credit-hours

Spring 2009

TR 12:30 – 1:45, Bowman-Oddy 3045

Instructor:	Von Sigler, Assistant Professor of Microbiology, Department of Environmental Sciences
Office:	BO 3086-G, BO 2006 (lab)
Telephone:	419 530.2897
Email:	von.sigler@utoledo.edu
Office hours:	TR 2:30 – 4:00 and by appointment
Prerequisites:	Junior or senior standing
Required text:	<i>Collapse: How societies choose to fail or succeed</i> by Jared Diamond (Viking Press, 2005)
Website	Access through DES webpage (Sigler)

Course setup and goals: EEES 3900 is intended as a 'Capstone' course for students majoring in Environmental Sciences or Environmental Studies, although a few students from other majors usually enroll as well. We do a wide variety of activities in this course, hoping to achieve three broad goals:

- (1) Critically examine and reinforce your understanding of the most significant environmental issues in today's world;
- (2) Enhance your communication skill when writing or speaking about these issues;
- (3) Expand your understanding of how scientifically valid information is gathered and presented.

Goal (1) will be approached largely through reading assignments and class discussions. Work toward goal (2) primarily involves exercises aimed at practicing writing skills, especially the clear, concise communication of concepts and ideas. ***This is a writing-intensive (WAC) course***, and you will do a lot of (mostly short) writing assignments. Oral communication is also built into the course in a variety of ways. Goal (3) involves a combination of readings, discussions and exercises, including some exposure to the primary literature.

Attendance: Your presence at each class meeting will greatly impact your grade. However, I will not record attendance. If you miss a class, it is your responsibility to obtain any class notes or pertinent information from a fellow student. I will not provide this information with the exception of extreme circumstances. **All email correspondence will be sent to your UT account.**

Grading: Your grade will be assessed based on your performance in several areas, as described in the following pages. The breakdown of points possible (210 points total) is as follows:

- (1) Portfolios (20 points each). Five short writings, done outside class, based on five topics drawn from the literature. The required format and content for the portfolio and a list of topics are described on page 2.
- (2) Term paper (30 points). A four- to five page paper on a topic chosen by the student. For details, see page 2-3.
- (3) Oral presentation (20 points). Given near the end of the semester, this presentation will be based on your written term paper topic. For details, see page 3.
- (4) Miscellaneous exercises (120 points @ 10 points each). Mostly done in class; a few are done at home.
- (5) "Collapse" presentation (20 points). Each student will be assigned a chapter in the text to present to the class. Presentations will be made via PowerPoint and include a chapter overview, opinions and points of discussion for the entire class. For details, see page 3.

Academic dishonesty: Academic dishonesty in this course will not be tolerated. Students who violate the above policy can expect disciplinary action. Please see the University of Toledo's academic dishonesty statement for more details: (<http://www.utoledo.edu/dl/students/dishonesty.html>).

ASSIGNMENT DETAILS

I. Portfolio assignments

During the semester you will be assigned to write four, three-page "portfolio" chapters on topics aligned with several environmental issues. Completed portfolios will be handed in at the beginning of class, *before* we discuss the topics.

Each portfolio will be organized in four parts, the first three written in your own words:

- (1) A **summary of general ecological concerns** related to the topic: i.e., what are the threats to the environment, or to public health and welfare?
- (2) What are the **major obstacles** to finding workable solutions to the problem?
- (3) What is being done, or should be done, to **address this problem**?
- (4) This part is a fourth page, consisting of a current/recent* **media clipping** or item from the internet that relates to some aspect of the topic.

**current/recent means within the past 5 years (2003 or more recent).*

Each section should be **clearly labeled**, and your attached news article should clearly indicate the source and date. Parts 1-3 should total no more than three, 1.5-spaced, typewritten pages. The clipping can simply be a photocopy or a print of an online article. One grade level will be deducted for each day a portfolio is handed in late (i.e., one day late, highest possible grade A-minus; two days late, B+, etc.).

Portfolio topics:

Portfolio 1: The emergence of antibiotic resistance in bacteria. (due January 27th)

Portfolio 2: The implications of global change to human health (due February 12th)

Portfolio 3: The environmental safety of genetically-modified organisms. (due February 24th)

Portfolio 4: Protecting ourselves from waterborne diseases. (due March 17th)

II. Term paper assignment

You will write a term paper based on an approved topic. The topic can be chosen from the list found on the course website, OR you can develop your own topic. However, if you would like to write on a topic that is not listed, you may do so if you can convince me that it is suitable. **You should tell me what topic you have chosen no later than Monday, February 10th.**

Provide me your **first** and **second** choice of topics, since I want to avoid too much duplication of topics. Keep in mind that in case I decide to ask some people to drop down to their second choice, it's first come, first served --- if you are the first to choose a particular topic as your first choice, you can be assured of getting it.

Your paper should be five pages long, double-spaced, in Ariel or Times New Roman font not smaller than 10- or larger than 12 point. Additional page(s) at the end must contain a list of citations, which also will be incorporated into the text at the appropriate places. Every citation used in the text should be listed at the end, and vice versa. It's not always obvious when to provide a citation for a piece of information, but in general, specific data (numbers) and statements of fact that are not common knowledge should be accompanied by a citation giving their source. One (not more than two) figure should be included, as well, not more than one column-width in size.

Due dates: A one page outline of your paper is due on **March 3rd**. The first draft of the complete paper is due on **April 9th**. I will comment on your draft and may provide an initial grade, which you may raise by revising the paper. The final version of your paper is due on the Tuesday of exam week (**May 5th**). **Your draft copy must be turned in with the final version.**

I will use two major criteria in evaluating your paper:

- (1) *quality of content.* You must go beyond a general, superficial treatment of the subject. Challenge yourself. Dig into the primary literature, and defend any original ideas of your own. Since five pages is not much space (~1250 words), you must make every sentence count.
- (2) *organization.* The paper should be organized in a logical manner, and flow smoothly from one section to the next. Each section should begin with a general statement before going into specifics and details. Any arguments you present should be developed in a clear, logical sequence of ideas. Although I will place relatively little weight on grammar and spelling, these are also important because they enhance your ability to communicate effectively, and will be taken seriously by the reader.

III. Oral Presentation

Each of you will present a brief oral report to the class during the interval April 14-30. Reports should be no less than 12 minutes and no more than 15 minutes in length, to allow time for discussion and the presentation of up to four student reports during a single class period.

Reports will be on the subject of your written term paper topic and must be presented via PowerPoint. More information about what is expected, within the oral reports will be provided later.

IV. Collapse discussions

Each student will lead a discussion about a chapter (or portion of a chapter) in the Book *Collapse: How societies choose to fail or succeed*. Discussions will be preceded by a PowerPoint presentation by the student that provides a background of the chapter, visual references beyond those in the book, and points to consider (either in line with the arguments in the book or not). It is intended that the presentation will lead to lively discussion among the non-presenting classmates.

Week	Date	Topics	What's assigned?	What's due?
1	01/13	-Introduction and syllabus review -ICW - AUTOBIOGRAPHICAL ESSAY	-Portfolio One (The emergence of antibiotic resistance in bacteria.)	
	01/15	-Discuss autobiographies -Types of literature	-Reading - Bt corn pollen papers -Reading - "Collapse" prologue, pp. 1-23.	
2	01/20	-Discuss Bt-corn pollen articles -“LOST ON THE MOON” EXERCISE (group)	-“Collapse” discussion leaders	
	01/22	-Discuss “Collapse” prologue - ICW – DESCRIPTIVE WRITING	-Reading - “Collapse” Ch. 2.	
3	01/27	-Discuss Portfolio One -Hints on oral presentations (Pechenik Ch. 13)	-Term paper topics -Portfolio Two (The implications of global change to human health)	-Portfolio One
	01/29	-Hand-out Pechenik Ch. 14, “Application letters”- Discuss “Collapse” Ch. 2	-Reading - “Collapse” Ch. 3.	-Presentation “Collapse” Ch. 2
4	02/03	-Interpreting scientific figures -ICW - WRITE THE CAPTION		
	02/05	-Identifying poor writing - ICW – PROS AND CONS OF MODERN CONVENIENCES (group)	-Reading - “Collapse” Ch. 4, 5.	
5	02/10	-Discuss “Collapse” Ch. 3		-Presentation “Collapse” Ch. 3
	02/12	-Data presentation and graphing -Discuss “Collapse” Ch. 4, 5	-Portfolio Three – (The environmental safety of genetically-modified organisms.) -DATA GRAPHING EXERCISE -Reading - “Collapse” Ch. 6.	-Portfolio Two -Presentation “Collapse” Ch. 4, 5 -Term paper topic
6	02/17	-Technical writing – Preparing a first draft -Technical writing - Outlines	-TERM PAPER OUTLINE	
	02/19	-Discuss “Collapse” Ch. 6 -Discuss data graphing exercise	-Reading – “Collapse” Ch. 7, 8.	-Presentation “Collapse” Ch. 6
7	02/24	-Discuss Portfolio Three -“WHERE TO BUILD YOUR BEACH HOUSE” (group)		-Portfolio Three -Data Graphing exercise
	02/26	-Discuss “Collapse” Ch. 7 -ICW - COMMUNICATING INSTRUCTIONS	-Reading – <i>E. coli</i> transport -Portfolio Four – (Protecting ourselves from waterborne diseases.)	Presentation “Collapse” Ch. 7
8	03/03	-Interpreting a scientific study - Discussion of <i>E. coli</i> transport -paper -ABSTRACT WRITING AND ICW EXERCISE	-Reading – “Collapse” Ch. 9, 10.	Term paper outline
	03/05	-Discuss “Collapse” Ch. 8 - ICW – PRESENT KNOWLEDGE, BUT IN THE PAST.		Presentation “Collapse” Ch. 8

ICW, In-Class Writing assignment; **BOLDED** items are miscellaneous class exercises (10 points each).

Week	Date	Topics	What's assigned?	What's due?
9	03/10 03/12		SPRING BREAK	
10	03/17	-Discuss Portfolio Four -Discuss "Collapse" Ch. 9	-Reading – "Collapse" Ch. 11, 12.	-Portfolio Four -Presentation "Collapse" Ch. 9
	03/19	-Discuss "Collapse" Ch. 10, 11.	-Reading – "Collapse" Ch. 13, 14.	-Presentation "Collapse" Ch. 10, 11
11	03/24	-Discuss term paper topics -Discuss "Collapse" Ch. 12	-Reading – "Collapse" Ch. 15, 1, 16.	-Presentation "Collapse" Ch. 12
	04/26	-Assign teams for dispute resolution exercise -Discuss "Collapse" Ch. 13, 14.		-Presentation "Collapse" Ch. 13, 14
12	03/31 04/02 04/07	NO CLASS (SPEND THE TIME WORKING ON YOUR TERM PAPER DRAFTS)		
13	04/09	-Discuss "Collapse" Ch. 15, 1. -Discuss "Collapse" Ch. 16. -CARBON REDUCTION EXERCISE (group)		-Presentation "Collapse" Ch. 15, 1 -Term paper draft -Presentation "Collapse" Ch. 16
	04/14 04/16			
15	04/21 04/23		Oral reports	
16	04/28 04/30			
	Finals week		Term papers due on Wednesday, May 5th	

Collapse presentation assignments

<u>Chapter</u>	<u>Student(s)</u>
2	Leigh Moorhead, Elyse Bernstein
3	Neale Mahon
4	Matthew Russo
5	Lauren Roberts
6	Cara Beagle, Patrick Turski
7	Michael Deal, Madelyn Smith
8	Kari Vitou
9	Jenna Svenson
10	Myla Skalsky
11	Brian Cox
12	Adrienne Doan
13	Michael Socha, Kevin Keeler
14	Kelly Poslaiko
15	Belal Orra, Marc Morandi
16	Karen Hoody, David Haskamp
1	Jean-Pierre Marais, Farren Rector