Environmental Studies 4810, Fall - 2014

Instructor:	Bradley A. Wilson, RC-2006A		
Office hours:	Mondays and Wednesdays – 10 - 11:15am and 1-2pm, Thursdays – noon till 2:20		
Lectures:	Thursdays, 2:30 – 5:20pm, RC-2003		
Textbooks:	1. Cradle to Cradle, 2002, McDonough and Braungart 2. The Sustainability Revolution, 2005, Edwards		
Grading:	- Participation/Attendance	20%	(-4% for unexcused missed classes)
	- Readings notes hand ins	12%	(3% each, weeks 2-5)
	- **Midterm Exam**	20%	**(Oct. 16**)**
	- Sustainability Innovation Award presentation	10%	(begins on Oct. 23)
	- Scientific Res. Presentations	13%	(begins on Nov. 13*)
	- Scientific Research Report	25%	(*due one week after your presentation)

Course Description:
The course begins with an in-depth look at the concept of true environmental and economic sustainability. Students will research and present information about our progress towards sustainability. The last portion of the course is comprised of student presentations and reports on a wider range of current scientific research topics related to this course.

Student Responsibilities:
- read assigned chapters or readings before class
- please attend class and arrive on time
- participate, ask questions, be skeptical

COURSE STRUCTURE:

Part 1: Sustainable Future?

(wk 1) C2C: Intro: This book is not a tree (video: The Next Industrial Revolution)
SR: Intro: Portrait of the sustainability revolution

(wk 2) C2C: Ch 1: Where to start? With Design……
SR: Ch 5: Sustainability and Ecological Design

(wk 3) C2C: Ch 2: Why being less bad is no good
SR: Ch 1: The Birth of Sustainability

(wk 4) C2C: Ch 4: Waste equals food
SR: Ch 3: Sustainability and Commerce

(wk 5) C2C: Ch 5: The importance of diversity
SR: Ch 6: Sustainability and the Biosphere

**** Week 6: Oct. 16 - midterm exam**

Part 2: Sustainability Innovation Award Presentation**

Students will conduct a search for a **recent recipient** of an award for some new innovation in sustainability. Information will be gathered on the economic, environmental, and social benefits of the new innovation. All three types of benefits of the new innovation are to be reported to the class in a PowerPoint™ presentation of between 12-15 minutes followed by a short question period.

The award sponsor should not be a corporation or some organization giving awards to its own employees or suppliers. Award sponsors need to be somewhat independent and not primarily an industry-marketing tool. Some good examples of award sponsors are:

- Globe Sustainability Innovation Award
- Edison Green Award
- The Green Manufacturer Product Innovation Awards
- ICIS Best Innovation For Sustainability
- ICIS Innovation With The Best Environmental Benefit
- The Australian Business Award For Best Eco Product

Part 3: Scientific Research Presentation and Report**

Students will present on current scientific methods used in environmental research (both natural and man-made environments). Students will select a field of current scientific study and report on at least 3 methods of researching the subject using multiple examples from the scientific literature. Students will complete a 15-20 minute class PowerPoint™ presentation and a 3000-word term paper on this topic. The main goal of this assignment is to become familiar with many methods of conducting scientific research and what types of information each method can produce.

Students will cover the following for each of the minimum 3 research methods:

- Explain the problem the research is trying to examine
- Explain how the data is gathered for each method of study
- Explain how the data is analyzed for each method of study
- Identify the type of information the analysis is meant to produce
- Elaborate on the strengths and weaknesses of each method of study

Grading for this assignment is heavily weighted on the amount of hard science and research you include in your presentation and report. Very little weight will be given to general or overview types of information. Good topics will have a lot of factual information from more than 20 scientific references.

**** All topics for Part 2 and 3 must be approved by your instructor to prevent duplication and to avoid topics that are too general.**