

## **Environmental Sustainability - ENV 1100 Winter 2015 Syllabus**

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Text: **Environmental Science**. Miller, Jr., G. Tyler, and Spoolman, Scott E. Brooks/Cole Pub. ISBN-13: 9781133766810

Environmental Sustainability is the idea that we can use the resources on Earth while causing minimal, or no, impact to the quality of life of both humans and all other organisms. In this course, we will attempt to cover all of the ways that humans and animals interact with their environments and how these interactions impact the environment. We will investigate the many ways that we might minimize our “footprint” on the environment, as well as how we can anticipate future environmental changes and plan for them.

The course will not only cover the environmental science of sustainability, but also political and sociological aspects, in an attempt to investigate how and why we choose to make the environmental decisions that we make. Hopefully, at the end of the class we will all have a better understanding of the importance of sustainable living, and use that understanding to make sustainable life choices and encourage those choices in others.

### **Class Structure**

Content for the course will be presented through PowerPoint presentations, posted on Blackboard each week, for each topic. These presentations will help guide you along the main topics of the course and are meant as a supplement to the book. Along with the PowerPoint, you will receive lecture notes, based on the book chapters’ topics, which you will utilize to complete given assignments to submit by the end of each week. We will “meet” for a short time each day on Blackboard to discuss the important topics of each day’s material.

### **Tests**

Tests will be given at the end of each week of the course. Each test will be posted and completed on Blackboard. The tests will consist of a short section of multiple choice questions and a section of short answer (usually 2-4 sentences) questions. Tests will need to be completed on the day assigned, in an amount of time dependent on the number of questions.

### **Assignments**

There will 6 assignments due at various times during the course, as mentioned in the class schedule. Below is a short description of each assignment. You will receive further instructions about each assignment on Blackboard, starting with the “Natural Selection” assignment on the first day and followed by the other assignments, in order. Due dates will be given when the assignment is posted on Blackboard, and will generally be within 1-3 days.

## **Assignment Descriptions**

### **Assignment 1: Natural Selection**

You will be tasked with demonstrating natural selection using beans and any location outdoors. You will hand in a standard lab report (title, introduction, hypothesis, method, data, results, discussion, and conclusion).

### **Assignment 2: Biodiversity**

You will need to identify a number of local tree species using their twigs, buds, and bark. You will submit pictures of each tree, along with identifying information, and other assigned information, such as native range, uses, climate, etc...

### **Assignment 3: Demography**

You will investigate the growth and change in human population using online software. You will answer a number of questions regarding the change in populations caused by factors such as birth rate, age distribution, disease epidemics, and social factors.

### **Assignment 4: Climate Change**

One of the most important topics in sustainability at the moment is the anthropogenic change in the global climate. We will cover this topic extensively during the course, and use online material as a supplement to our course material. At the end of the topic, you will be tasked with completing an online lab and answering questions related to climate change.

### **Assignment 5: Sustainability in the News**

One of the main tenets of the course is that sustainability is something that we work towards each and every day in many aspects of our life. With that in mind, you will be tasked with finding two news articles with sustainability as a main idea. You will summarize the article and how it relates to topics we discuss in during the course. Additional guidelines will be given on Blackboard. These assignments can be completed at any time during the semester, but are due on January 2<sup>nd</sup> and January 8<sup>th</sup>.

## **Tentative Course Schedule**

Date	Topics	Assignment
12/22-12/26	Ecosystems and Biomes	Natural Selection
	Biodiversity – Evolution	
	Biodiversity – Populations	Biodiversity Investigation
	Biodiversity – Climates	Test#1
12/29-1/2	Human Population	Demography
	Ecosystem Management	
	Soil and Food	In the News #1 Due
	Water Use and Pollution	Test#2
1/5-1/9	Atmosphere Components and Pollution	Climate Change
	Energy Sources – Renewable vs. Nonrenewable	
	Energy Sources – Energy Efficiency	In the News #2 Due
	Environmental Hazards and Health Risks	Test #3

### Submitting Coursework

All coursework must be submitted on its assigned due date. If work is submitted later than the due date, it will be assessed a 10% penalty for each day that it is late. After one week, the assignment will receive no credit.

Assignments should be submitted electronically with the file name scheme of:

Your last name – assignment name – date – ENV1100.file extension

(example: Sarnoski – Natural Selection Lab – Dec 28 2014 – ENV1100.doc)

If you do not follow this naming scheme, or your file extension does not match your file type, you will be assessed a 5% penalty.

All assignments should also begin with a heading that includes a title, your name, and the date. If your assignment doesn't have a proper heading, a 5% penalty will be assessed.

### Grading:

Completed Lecture Notes	20% (~2% per lecture note)
Assignments	
Natural Selection Lab	10%
Biodiversity Lab	10%
Human Demography	5%
Climate Change	5%
Sustainability in the News	10% (5% each)
Tests	40% (~13% per test)

### Grading Scale

A – 90-100

“+” is earned from 7-9 in each letter scale (except “A”)

B – 80-89

“-” is earned from 0-2 in each letter scale

C – 70-79

D – 60-69

### Feedback

All lecture notes will be returned only when corrections are made. Class assignments will be returned within 3 days of being submitted. Tests will be graded through Blackboard within 3 days of the test date.

You will have all the information needed for monitoring your own grade, and will be expected to keep abreast of your performance. Your success in the class is your responsibility!

Due to the abridged nature of a winter course, there will be no extra credit assignments.

### Academic Integrity

All students are expected to abide by the University's Academic Integrity Policy in all assignments and tests. Any violations of the policy will be subject to consequences deemed appropriate by the professor, which might include, but is not limited to: failure of the assignment, failure of the course, and/or being reported to the University for further disciplinary action.