

ENR/AEDE 2500
Introduction to Environment, Economy, Development and Sustainability
Autumn 2016 -- M,W,F 10:20 - 11:15 -- 1180 Postle Hall

Instructors:	Jeremy Brooks	Brent Sohngen	TA: Rongkun Liu
Office:	469D Kottman Hall	322 Ag Admin.	Office - TBD
Office Hours:	W. 2-4 or by appt.	W. 1 - 3 or by apt.	Hours - TBD
Email:	brooks.719@osu.edu	sohngen.1@osu.edu	liu.5811@osu.edu
Phone:	614-292-9787	614-688-4640	

General Outline:

Sustainability is a topic that requires knowledge of human and natural systems and the skills to manage change and think holistically across scales in time and space in a variety of settings. The primary goals of this course are to (1) develop the foundational knowledge and skills that students will require to grasp the multi-dimensional and multi-disciplinary nature of sustainability (2) introduce students to sustainability concepts from different disciplines and (3) introduce the tradeoffs that are often a part of sustainability thinking, planning, and action. An additional goal is to provide students with a common framework for additional sustainability-oriented courses within the EEDS major and minor and in other courses offered across campus. Students will be introduced to the fundamental principles, concepts, and knowledge from ecology and environmental science, economics and business, community and international development and sustainability science. Because sustainability can be laden with ideological thinking that can sometimes cloud important issues and avenues for advancement, we will employ a scientific perspective to examine the obstacles and opportunities for social, economic, and environmental sustainability. The emphasis will be on introducing important skills and tools necessary for a fruitful career in sustainability and on critically evaluating the key concepts and popular discourse on sustainability.

Course Objectives:

Upon completion of the course, students will be able to:

- Critically assess the various definitions of sustainability and sustainable development.
- Compare and contrast key concepts and ideas in sustainability, economics, business, ecology and conservation biology, and community and international development.
- Apply a scientific approach to examining the connections, tradeoffs, and synergies across environmental, economic, and social components that are involved in achieving sustainability goals.
- Demonstrate an appreciation of how ecosystem function changes in response to human and nonhuman influences, how humans use and impact ecosystem services, and the implications of these human-environment interactions for sustainability.
- Examine their own ethics and values related to sustainability, the obstacles to changing their own behavior, and how those obstacles might apply to others.
- Demonstrate a basic understanding of how organizations, markets, and institutions can help and hinder achievement of a sustainable society.
- Apply sustainability concepts to evaluate case studies that explore sustainability goals and outcomes of programs or policies at individual, organizational, community, regional, and global scales.
- Exhibit independent thinking and learning the environmental, economic, and social components and trade-offs of sustainability.

Grading:

A	>93 % of possible points	B-	80-83%	D+	67-69%
A-	90 - 93%	C+	77-79%	D	64-66%
B+	87-89%	C	74-76%	D-	60-63%
B	84 - 86%	C-	70-73%		

Course Materials:

There is no textbook. We will use a variety of materials that you will be required to read, view, or listen to before class so that you are prepared to discuss these materials in class.

Make-up Work: Make-ups for assignments or exams will not be scheduled for an unexcused absence (and in some cases, may not be rescheduled for logistical reasons). Three situations constitute an "excused absence" from class: 1) students who participate in a *documented* University sanctioned event, 2) students who have a *documented* death in the family, and 3) students who have received *documented* medical attention for an illness. Students who will be participating in University sanctioned events must provide the instructor with a copy of the scheduled events and the classes that will be missed. This documentation must be on University letterhead, signed by the coach/supervisor, and given to the instructor two weeks prior to the event.

Late Assignment Policy: To receive full credit, assignments must be turned-in on time and in condition to be evaluated. Late assignments will incur a deduction of 10% of the total point value for each 24-hour period that they are late (including weekends). Late assignments can be turned in for up to 7 days (including weekends) after they are due with the penalty described above. After that students will receive a 0. Excuses for missed or late assignments – even valid ones – will not be accepted more than 7 days after the due date. Excuses for missing an exam must be presented to the instructors ***prior to the exam*** when at all possible.

Availability of Accommodations

If you need an accommodation based on the impact of a disability, you should contact the course instructor during the first week of class so that we can explore potential accommodations. The Office For Disability Services will provide assistance in verifying the need for accommodations and developing accommodation strategies. If you have not previously contacted the Office for Disability Services, you are encouraged to do so.

A Note on Academic Dishonesty:

In the university setting, academic dishonesty is one of the most serious offenses a student can commit. Often the student isn't aware of exactly what constitutes academic dishonesty. Please familiarize yourself with the procedures created by the OSU Committee on Academic Misconduct so that you are aware of the penalties and sanctions you face if you cheat or plagiarize: (<http://oaa.osu.edu/coam.html>).

In addition, here are some basic guidelines regarding academic dishonesty:

1. Cheating on an exam: Unless allowed by the instructor, you may not look at someone else's work, allow someone else to look at your work, or refer to notes/other materials during the exam.
2. Plagiarism: You should be aware of what constitutes plagiarism, because it can have **serious** consequences. Plagiarism means using someone else's ideas or words (even in a short phrase) without indicating where you got them. If you use someone else's idea, in your own words, you must include a citation to indicate where you got the idea. If you use someone else's words, you must put quotes around them and include a citation to indicate where they came from. Plagiarism includes copying another student's paper or idea.

***** Please note, OSU's Counseling and Consulting Service, through the Office of Student Life, has announced drop-in workshops open to all students for managing stress and anxiety. Please see this website for more information:

<http://www.ccs.ohio-state.edu/drop-in-workshops/>

CLASS SCHEDULE

(note – while the sections will remain as posted the specific topic for any given class period is subject to change to accommodate guest lecturer schedules)

Section I – Introduction

Section I – Introduction to Sustainability Thinking			
Lecture	Date	Topic	Assignment Due
1	W 8/24	Course overview	
2	F 8/26	Intro to Sustainability	
3	M 8/29	Intro to Sustainability II	
4	W 8/31	Intro to Sustainability III	
5	F 9/2	Intro to Env't. Science and Ecology	"Sustainability – six words assignment"
--	M 9/5	LABOR DAY – NO CLASS	
6	W 9/7	Intro to Economics and Business concepts	Comments on "Sustainability-six words" posts
7	F 9/9	Intro to Development - discussion of "six words" assignment	

Section II – Consumption

Section II – Consumption			
Lecture	Date	Topic	Assignment Due
8	M 9/12	Intro to Population & Consumption	
9	W 9/14	Consumption: Economic perspective	
10	F 9/16	Theories of consumption: Social, cultural and evolutionary perspectives	
11	M 9/19	Consumption: Business and micro-economic perspective	
12	W 9/21	Guest speaker	
13	F 9/23	Development, progress and sustainability	Consumption assignment due
14	M 9/26	Consumption, economic, growth and sustainability	
15	W 9/28	Consumption and International Development	

Section III – Water

Section III – Water			
Lecture	Date	Topic	Assignment Due
16	F 9/30	EXAM 1	
17	M 10/3	Intro to water quality and quantity	
18	W 10/5	Economics of Water	
19	F 10/7	Economics of Water II	
20	M 10/10	Business & Water	
21	W 10/12	Water & Communities	Klamath case study due
--	F 10/14	FALL BREAK - NO CLASS	
22	M 10/17	Water & Communities II	
23	W 10/19	Water & International Development	
24	F 10/21	Klamath Case Study Discussion	

Section IV – Climate/Energy

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Lecture	Date	Topic	Assignment Due
25	M 10/24	Intro to Climate/Energy	
26	W 10/26	Climate/Energy II	
27	F 10/28	Climate/Energy economics and business	Sustainability innovation assignment due
28	M 10/31	Climate/Energy economics and business	Comments on sustainability innovation postings due
29	W 11/2	Climate/Energy & International Development (REDD+)	
30	F 11/4	Climate/Energy & Communities	
31	M 11/7	Case Study discussion	DuPont sustainability case study due
32	W 11/9	EXAM 2	
33	F 11/11	VETERAN'S DAY - NO CLASS	

Section V – Biodiversity

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Lecture	Date	Topic	Assignment Due
34	M 11/14	Intro to Biodiversity	Assign roles for GMO assignment
35	W 11/16	Biodiversity & International Development	
36	F 11/18	Biodiversity & International Development	
37	M 11/21	Biodiversity & Community Development – Film Discussion	GMOs Essay Due
38	W 11/23	THANKSGIVING	
--	F 11/25	BREAK	
--	M 11/28	Biodiversity and Community Development II	
39	W 11/30	Biodiversity & Economics – Payment for Ecosystem Services	
40	F 12/2	GMOs case study discussion	
41	M 12/5	Discussion of top sustainability innovations as voted by the students	
42	W 12/7	Class wrap-up – final exam review	
TUES. DEC 13th 10 – 11:45am		FINAL EXAM	