

ENVS 14: Sustainable Food Systems
Course Number Spring 2020
Class Meetings: 2A

Instructor: Professor Theresa Ong
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Office hours: Fairchild 123
T 4:15-5:15p
W 3:30-4:30p, or by appointment

Course Description

Sustainable food systems demand an answer to the question, what is sustainable? This course will explore the many names and faces of food, asking students to critically evaluate sustainability from scientific, social and political perspectives. The course is organized into three modules: 1) food, 2) energy & ecology and 3) environmental justice. The first module provides an overview to food systems, taking a look various management styles and their environmental consequences. We will pull examples from historical times to the present, from the precursors of the Dust Bowl to concentrated animal feed operations (CAFOs). The second module will provide a scientific understanding of the key energetic and ecological components that contribute to the sustainability of food systems including its contribution to climate change and global deforestation. In the third module we will examine the social injustices of food systems, from its twin roles in obesity and hunger to the development of key social movements striving for a new but old “peasant-way of life”. *Distribution: TAS*

Pre-requisites: None

Course Learning Outcomes

In this course, students will:

- Understand the management and ideological principles that differentiate different food systems
- Critically assess sustainability in food from scientific, social and political perspectives
- Develop reading, writing and speaking skills for analyzing and critiquing contrasting perspectives on food

Teaching Methods & Philosophy

This course will be half lecture and half student-led discussions based on contemporary readings. Lectures will provide appropriate background and case studies to place readings into context. Discussions serve to fully engage students in the material and help develop critical reading, speaking and collaboration skills. Students will also write a food blog, comment on the food blogs of other students and conduct a food waste study to critically examine their own food practices and beliefs within the context of their current social/environmental conditions. There will be a mid-term covering 2/3 of the class materials in the form of short answer questions. For the final, students will write a critical review paper on the discussion topic they previously led, or a new topic, that synthesizes information from the entirety of the course and outside sources in order to develop skills in writing, research and analysis. This paper will be a maximum of 7 pages, double-spaced and must include a bibliography with 5 or more peer-reviewed publications, academic books or book chapters. A more detailed rubric will be given to you closer to the term paper's deadline.

Expectations & Norms

Vigorous and respectful debate in discussion is encouraged. Disrespect, or any negative comments directed towards persons because of race, gender, creed, religious affiliation, etc. will not be tolerated. If I or any of your peers find your comments unwarranted, you will receive an initial warning. Continued transgressions will be reported to the college for potential disciplinary action. Disciplinary action would be taken given a violation of the [Standards of Conduct](#). Students are encouraged to come speak to me, or other campus officials at the [Office of Institutional Diversity and Equity](#) about any issues or concerns.

To encourage active engagement in class, this class has a no-screen policy. No cell phones, tablets, laptops, etc. are allowed in class, unless accessibility concerns require their use. Accommodations will be made for those who require them, please see the 'Student Accessibility and Accommodations' section for further details. Otherwise, please pre-print discussion materials and bring them to class.

Class participation

Participation is a major part of this course. This means attending, listening and contributing relevant thoughts to discussion, while striving to hear from many voices in the class. If you are a shy person this may mean taking steps to engage in discussion that may feel less comfortable at first. If you are a talkative person this may mean listening more than talking so as to encourage more voices to be heard. While I do not take attendance, in general I expect you to come to class and participate in the discussions that are had each day.

Email policy

You are welcome to email me, but do not expect immediate responses. I will not reply to messages outside of work hours, which are defined as M-F 9-5p, excluding holidays and class

breaks, unless otherwise stated. If I do not respond within a 2 day period considering these time frames, you're welcome to email me again since these things do get lost occasionally.

Mental Health and Wellness

The academic environment at Dartmouth is challenging, our terms are intensive, and classes are not the only demanding part of your life. There are a number of resources available to you on campus to support your wellness, including your undergraduate dean (<http://www.dartmouth.edu/~upperde/>), Counseling and Human Development (<http://www.dartmouth.edu/~chd/>), and the Student Wellness Center (<http://www.dartmouth.edu/~healthcd/>). encourage you to use these resources to take care of yourself throughout the term, and to come speak to me if you experience any difficulties

Diversity and Inclusivity at Dartmouth

Dartmouth's capacity to advance its dual mission of education and research depends upon the full diversity and inclusivity of this community. We must increase diversity, particularly among our faculty and staff. As we do so, we must also create a community in which every individual, regardless of gender, gender identity, sexual orientation, race, ethnicity, socio-economic status, disability, nationality, political or religious views, or position within the institution, is respected. On this close-knit and intimate campus, we must ensure that every person knows that he, she, or they is a valued member of our community.

Diversity and inclusivity are necessary partners. Without inclusivity, the benefits of diversity—an increase in understanding, improvement in performance, enhanced innovation, and heightened levels of satisfaction—will not be realized. - President Philip Hanlon '77 - Excerpt from May 2016 Letter to the Dartmouth community

Texts & Materials

We will be reading a series of book chapters, news and scientific articles, which will be provided to you on Canvas. They are great books though, and you are encouraged to read them in their entirety if that is of interest to you!

- Gurian-Sherman- "Can eating cows save the planet?"
- Russell- *War & Nature*
- Perfecto & Vandermeer- *Breakfast of biodiversity*
- Kremen- "Reframing the land-sparing/land-sharing debate for biodiversity conservation"
- Oreske- *Merchants of doubt*
- Moss- *Salt, sugar, fat*
- Patel- *Stuffed & starved*
- Estabrook: *Tomato land*
- Tree- "If you want to save the world, veganism isn't the answer"

Assessment & Grading

Discussion lead/assessment – 5%

Food blog – 15%

Food blog commentary – 5%

Midterm- 30%
Food waste study– 10%
Critical review paper- 25%
Participation – 10%

Late policy

For late submissions I will deduct a half letter grade per day, with the due date counting as the first day (e.g. if you turn an assignment in after the due date and time but within 24 hours of this, your grade will be reduced from an A to an A- or a B to a B-). If you anticipate that you will have a problem meeting a deadline due to an excusable issue (e.g., family emergency, serious illness, etc.), please contact me before the assignment is due to make appropriate arrangements.

Dartmouth Policies

Student Accessibility and Accommodations

Students with disabilities who may need disability-related academic adjustments and services for this course are encouraged to see me privately as early in the term as possible. Students requiring disability-related academic adjustments and services must consult the Student Accessibility Services office in Carson Hall 125 or by phone: 646-9900 or email: Student.Accessibility.Services@Dartmouth.edu.

Once SAS has authorized services, students must show the originally signed SAS Services and Consent Form and/or a letter on SAS letterhead to me. As a first step, if you have questions about whether you qualify to receive academic adjustments and services, you should contact the SAS office. All inquiries and discussions will remain confidential.

Religious Observances

Some students may wish to take part in religious observances that occur during this academic term. If you have a religious observance that conflicts with your participation in the course, please meet with me before the end of the second week of the term to discuss appropriate accommodations.

Academic Honors Principle

The faculty, administration, and students of Dartmouth College recognize the Academic Honor Principle as fundamental to the education process. Any instance of academic dishonesty is considered a violation of the Academic Honor Principle.

Fundamental to the principle of independent learning are the requirements of honesty and integrity in the performance of academic assignments, both in and out of the classroom.

Dartmouth operates on the principle of academic honor, without proctoring of examinations. Any student who submits work which is not his or her own, or commits other acts of academic dishonesty, violates the purposes of the college and is subject to disciplinary actions, up to and including suspension or separation.

The Academic Honor Principle depends on the willingness of students, individually and collectively, to maintain and perpetuate standards of academic honesty. Each Dartmouth student accepts the responsibility to be honorable in the student's own academic affairs, as well as to support the Principle as it applies to others.

Any student who becomes aware of a violation of the Academic Honor Principle is bound by honor to take some action. The student may report the violation, speak personally to the student observed in violation of the Principle, exercise some form of social sanction, or do whatever the student feels is appropriate under the circumstances. If Dartmouth students stand by and do nothing, both the spirit and operation of the Academic Honor Principle are severely threatened. A number of actions are specifically prohibited by the Academic Honor Principle. These focus on plagiarism and on academic dishonesty in the taking of examinations, the writing of papers, the use of the same work in more than one course, and unauthorized collaboration.

More information can be found at <https://students.dartmouth.edu/judicial-affairs/policy/academic-honor-principle>.

Course Schedule and Topics

Wk	Module	Specific topic	Readings	What's due?
1	Food	Introduction to each other and course / Lessons from history - Erosion & the resource concentration hypothesis: The Irish Potato famine and the Dust Bowl		
		No X hr		
		Sustainable what? The many names/acronyms of food (labels) and their meanings: conventional systems, organic, local, pesticide free, regenerative, climate-smart, agroecology, GMOs, CAFOs, syndromes of production	EC: participate in Real organic conference!	EC: what is <i>real</i> organic?
2		<i>Discussion I: Regenerative agriculture</i>	Gurian-Sherman-	Sign up for discussion leads
		No X hr		
		The green revolution, crop diversity, globalization		
3		<i>Discussion II: Pesticides, War and Patriotism</i>	Russell	Food blog
		No X hr		

	Energy and Ecology	Abiotic: Sun, water, soil and/or nutrients, growth tradeoffs		Food blog commentary
4		<i>Discussion III: Socio-technological solutions, hydroponics/GMOs/CAFOs</i>	TBD	
		EARTH DAY X HOUR		
		Biotic: Biodiversity (Biological control, disease/pest outbreaks of the past and present)		
5		<i>Discussion IV: Land sparing & sharing, the agroecological matrix</i>	Perfecto & Vandermeer, Kremen	
		No X hr		
		Food & Climate change: carbon footprints, climate variability and farming risk	Oreske	
6		MIDTERM: Food, Energy & Ecology modules		
		No X hr		
	Environmental Justice	Stuffed & Starved: Nutrition, food science & human psychology		
7		<i>Discussion V: Diabetes & fast food</i>	Moss, Patel	
		No X hr		
		Food chains: food workers in the US and abroad (coffee, bananas)		
8		<i>Discussion VI: Wendy's boycotts & modern day slavery</i>	Estabrook	
		No X hr		
		Re/de peasantization: Food movements & transitions: Cuba, MST, La Via Campesina, Urban Ag		
9		<i>Discussion VII: Personal vs. collective action</i>	Tree	Food waste diary
		No X hr		
		Closing thoughts & Community snack hour/ Food waste summary		

10	Finals	No Class		
		No X hr		
		Finals scheduled 11:30a		Critical review paper