

CSUS 200:2
Introduction to Sustainability

Fall 2019
Monday and Wednesday, 3 – 4:20 p.m.
048 Agriculture Hall

Michael W. Hamm
C.S. Mott Professor of Sustainable Agriculture
312B Natural Resources
Cell: 517-604-0148 (can text/best number)
Office Phone: 517-432-1611
Email: mhamm@msu.edu

Books and Readings:

- David Wallace-Wells (2019) *The Uninhabitable Earth* (**TUE**) AND Richard Heinberg & David Fridley (2016) *Our Renewable Future* (**ORF**) both available from bookstore or from Amazon.com.
- Any other assigned readings online and will be found on D2L site: <https://d2l.msu.edu/>

Office Hours: By appointment

DESCRIPTION

Total Credits 3, Lecture/Recitation/Discussion 3 hours. An introduction to sustainability and an individual's role in sustainability initiatives. The implications of individual actions for key sustainability challenges will be discussed. The application of sustainability principles and associated leadership skills in a community will be explored.

COURSE AIMS

1. Apply key ecological concepts to explain relationships between people and ecosystems
2. Recognize and define basic systems language, properties and behaviors.
3. Explain and apply core concepts of community in the context of oneself and sustainability.
4. Develop a greater sense of self and relationship of your worldview to others.

COURSE OUTCOMES

Students will be able to:

1. Identify key themes and principles in sustainability development
2. Apply a variety of critical thinking, analysis and research skills to evaluate the credibility of sustainability policy positions and scientific arguments.
3. Identify the concept of an ecological footprint and recognize their ecological footprint.
4. Improve decision-making capabilities within the context of sustainability.
5. Assess whether a societal issue is a wicked or tame problem.
6. Develop team leadership skills within groups to advance change within communities.
7. Use information technologies in their formal and non-formal learning.
8. Consider the importance of the Commons in developing community sustainability strategies.

9. Identify individual worldviews as they relate to sustainability and their implications for individual actions.
10. Examine the interaction between agriculture, food, natural resources and Michigan communities using a systems approach.
11. Use Life Cycle Analysis to consider the true costs of products and services.

This course is intended to help meet both the MSU learning goals (<http://learninggoals.undergrad.msu.edu>) and the Dept. of Community Sustainability learning goals (<http://www.csus.msu.edu/undergraduate>).

CLASS SCHEDULE

Week 1	Introduction
1: 8/28	Introduction to the class; discussion of various class components; in-class write: What do you want to achieve? Why are you taking this course? What, specifically, do you want to improve? What do you hope that success in this course will help you achieve in the future?
Week 2	Wicked Problems and Sustainability
2: 9/2	Labor Day- no class
3: 9/4	What is 'sustainability'? Why do people disagree so much? What is a wicked problem? (TUE Cascades; ORF Introduction)
Week 3	Sustainability & Climate Change
4: 9/9	Broadening the Lens on Sustainability; Planetary Boundaries; Doughnut Economics; UN Sustainable Development Goals (Readings Online)
5: 9/11	U.S. and Global trends; Climate Change (ORF Ch.1&2)
Week 4	Ecological Principles and Footprints
6: 9/16	Ecological Principles and Examples (TUE Heat Death & Storytelling)
7: 9/18	Ecological footprints – what are they and what does it mean? How do I measure mine? (Readings Online)
Week 5	Renewable Energy
8: 9/23	Renewable Energy (ORF Ch.3)
9: 9/25	<i>Field Trip – Recycling Center.</i>
Week 6	Transportation/Water
10: 9/30	Transportation, Energy, and Climate Change (ORF. Ch3)
11: 10/2	Water and Water Footprints (TUE Drowning & Fresh Water Drain)
Week 7	Water/Life Cycle Analysis
12: 10/7	Water and Geopolitics (Readings Online)
13: 10/9	Life cycle analysis and what they mean (Readings Online)
Week 8	Food and Agriculture
14: 10/14	<i>Field Trip – Student Organic Farm</i>
15: 10/16	Food (TUE Hunger)
Week 9	Food and Agriculture
16: 10/21	Agriculture and Production – for what and for whom? (Readings Online)
17: 10/23	Food Systems (Readings Online)
Week 10	Justice, Consumption, and Economy
20: 10/28	Environmental Justice and Sustainability (ORF Ch.8 &s TUE Ethics at the End of the World)

21: 10/30	Consumption and Economy (TUE Crisis Capitalism & Politics of Consumption)
Week 11	MSU Power Plant
18: 11/4	<i>Field Trip</i> – MSU Power Plant (1/2 of class)
19: 11/6	<i>Field Trip</i> – MSU Power Plant (1/2 of class)
Week 12	Community and Policy
22: 11/11	Community and Policy (ORF Ch.10)
23: 11/13	Government & Private Policy; Citizen engagement (ORF Ch. 9&11)
Week 13	System's Interactions
24: 11/18	Relationships between food, water, energy, land, waste, and population – can the world feed nine billion people? Can consumption increase globally?
25: 11/20	Policy Presentations
Week 14	Presentations/Wrap-up
26: 11/25	Policy Presentations
27: 11/27	Work on final papers – questions, comments, and discussion
Week 15	
28: 12/2	Policy Presentations
29: 12/4	Closing discussion – where have we come, questions, assumptions
Week 16	
	Final Exam Monday, 12/9 3-5 PM in our classroom

ASSIGNMENTS

All Assignments will be turned in electronically via D2L. All writing should be formatted as 1” margins, 12-point font, and double-spaced. The Final will be written during the scheduled time. More than one application (e.g. a Web browser, Microsoft Word, Prezi, Powerpoint, Excel, etc.) may be needed for a given assignment.

- 1) R3 – Reduce, Reuse, Recycle. This assignment spans the semester – please note that it makes up a substantial part of the total points in the class.
 - a. The task the first week is for you to identify a daily or weekly personal behavior that you can change which results in reducing, reusing or recycling a resource/product (we will discuss this the first day of class and you will need to finalize via email by the second day of class). Some examples would be decreasing the number of miles you drive your car by 25%, decreasing your water usage by 15%, eliminating your use of plastic shopping bags, eliminating your use of bottled water, or reducing electrical use to name a few. You will write and submit electronically a 3-page narrative of what you want to do and why. Consider what the behavior is, why it is important to you to change it, and what you hope to accomplish by the change in both your personal life and the world at large. This is worth 100 points. Name the report

FirstnameLastnameR3Prelim.docx. **This two-page paper is due by midnight Friday, Sept. 13th.**

- b. You will blog each week of the semester. The first week blog will focus on the selection of your behavior (subject to Dr. Hamm's approval) to modify (as well as some baseline data for what you are currently doing) and the following blogs will summarize your successes (and failures) to change your behavior. The blogs are worth 130 points (10 points per blog). **Weekly Blog is due by Midnight Friday – e.g. Blog 1 is due September 6th by midnight.**
- c. You also need to keep a spreadsheet to track changes (e.g. commute miles via bike; bottles of water consumed per week; etc) on an appropriate basis (daily or weekly). **The spreadsheet is due with the final report on Friday, Dec. 6th at midnight.**
- d. You will need to do a 3-page literature review on your selected behavior change. What does the literature (this can include websites, online documents, papers, journal articles, etc.) say about your intended behavior change. This is worth 100 points. Name the report *FirstnameLastnameR3Lit.docx*. **This three-page paper is due by midnight Friday, Nov 8th.**
- e. You will prepare a brief report (3-4 pages) that summarizes your change over the semester and analyses the environmental impact of your behavioral change at the individual level as well as the impact the change would have if every undergraduate at MSU (assume 37,000 undergraduate students) had changed the same behavior (assuming they were not already doing it). The report should include summaries from your spreadsheet. You will turn in your spreadsheet with your report. Report should be a Microsoft Word file and the spreadsheet an Excel file. Name the report *FirstnameLastnameR3.docx* and the spreadsheet *FirstnameLastnameR3.xlsx* and place them in the appropriate drop box in D2L. The blogs are worth 130 points (10 points per blog) and the report is worth 150 points. **The final report is due by Friday, Dec. 6th at midnight.**

2) Book Review. You will write a three-page book review on *The Uninhabitable Earth*. Your review will actually cover four chapters from the book:

- Cascades;
- one chapter from section II - Elements of Chaos;
- one chapter from section III - The Climate Kaleidoscope;
- Section IV. The Anthropropic Principle.

You are expected to expand on a particular element (from section II) as it is written with a particular challenge from section III. This should be done in the context of 'Cascades' and 'The Anthropropic Principle' and in a form of a book review. There will be links to several examples of book reviews (in particular of this book) so you can get a sense of how to write a review from ones I consider useful. We will discuss the specifics of the review for this book further in class. The book review is worth 100 points. The report should be named *FirstnameLastnameBook.docx* and placed in the appropriate drop box in D2L. **(The Book Review is due by Midnight on Friday, October 25th).**

3) Policy Position Paper and Presentation. You are to identify a position on your R3 project that can apply to a large group at MSU (such as all undergrads in dorms) that you would identify as a wicked problem. Your task is to develop a three-page policy paper around this position. A policy paper is a persuasive document that outlines your views on a particular policy or issue you have studied (and is of interest to you). The policy paper is a way to apply what you have learned in a format that communicates ideas or recommendations, or persuades people to consider your views. The audience for the paper should be a group on or affiliated with the MSU campus, for e.g. other parents, alumni, students, university/college administrators, faculty, staff or anyone else with a stake in the issue. There is a resource to help you with writing a policy position paper in the Assignments Folder on D2L. The paper and presentation is worth 150 points. ***(The Policy Position paper is due by Midnight on Wednesday, November 20th) and presentations will occur at the end of the semester.***

4) Class Assignments and Participation. Active participation in class is expected (including prior assigned readings) and worth 5 points per class (29) with a bonus of 5 points spotted to you for a total of 150 points. ***(You must be in class, or excused, in order to earn the 5 points).***

5) Final. The Final will be comprehensive and closed book. It will be based on the power points used in class and the book – Choices for Sustainable Living. The Final is worth 120 points. ***(The Final is on Monday, December 9th from 3 to 5 PM).***

STUDENT EVALUATION CRITERIA

Assignments¹

Reduce, Reuse, Recycle Opening Report	100
Reduce, Reuse, Recycle Lit Review	100
Reduce, Reuse, Recycle Blogs	130
Reduce, Reuse, Recycle Final Report	150
Book Review	100
Policy Paper and Presentation	150
Class Attendance & Assignments	150
Final	120
Total	1000

Grading Scale

<u>Grade</u>	<u>Points</u>
4.0	1000 – 920
3.5	919 – 860
3.0	859 – 820
2.5	819 – 750
2.0	749 – 700
1.5	699 – 650
1.0	649 – 600
0	< 600

¹ 10% deduction for each business day late

CLASS MANAGEMENT

Academic Misconduct

[Article 2.III.B.2](#) of the Academic Freedom Report states: “The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards.” In addition, (insert name of unit offering course) adheres to the policies on academic honesty specified in General Student Regulation 1.0, [Protection of Scholarship and Grades](#); the all-University Policy on [Integrity of Scholarship and Grades](#); and [Ordinance 17.00](#), Examinations.

Therefore, unless authorized by your instructor, you are expected to complete all course assignments, including homework, lab work, quizzes, tests and exams, without assistance from any source. You are expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the www.allmsu.com Web site to complete any course work in this course. Students who violate MSU regulations on Protection of Scholarship and Grades will receive a failing grade in the course or on the assignment.

Faculty are required to report all instances in which a penalty grade is given for academic dishonesty. Students reported for academic dishonesty are required to take an online course about the integrity of scholarship and grades. A hold will be placed on the student's account until such time as the student completes the course. This course is overseen by the Associate Provost for Undergraduate Education.

Article 2.III.B.2 of the Academic Freedom Report states that "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards." In addition, the Department of Community Sustainability adheres to the policies on academic honesty as specified in General Student Regulations 1.0, Protection of Scholarship and Grades; the all-University Policy on Integrity of Scholarship and Grades; and Ordinance 17.00, Examinations. (See Spartan Life: Student Handbook and Resource Guide and/or the MSU Web site: www.msu.edu). Therefore, unless authorized by your instructor, you are expected to complete all course assignments, including homework, lab work, quizzes, tests and exams, without assistance from any source. You are expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the www.allmsu.com web site to complete any course work in CSUS 200. Students who violate MSU academic integrity rules may receive a penalty grade, including a failing grade on the assignment or in the course. Contact your instructor if you are unsure about the appropriateness of your course work. (See also <http://www.msu.edu/unit/ombud/dishonestyFAQ.html>). **There will be no warnings – the maximum sanction allowed under University policy will occur on the first offense.** Turnitin.com will be used for all written assignments.

Consistent with MSU's efforts to enhance student learning, foster honesty, and maintain integrity in our academic processes, Dr. Hamm may use a tool called Turnitin to compare a student's work with multiple sources. The tool compares each student's work with an extensive database of prior publications and papers, providing links to possible matches and a 'similarity score'. The tool does not determine whether plagiarism has occurred or not. Instead, Dr. Hamm must make a complete

assessment and judge the originality of the student's work. All submissions to this course may be checked using this tool.

If directed by Dr. Hamm, students should submit papers to Turnitin Dropboxes without identifying information included in the paper (e.g. name or student number); the system will automatically show this info to faculty in your course when viewing the submission, but the information will not be retained by Turnitin.

The Spartan Code of Honor

The Associated Students of Michigan State University (ASMSU) is proud to be launching the Spartan Code of Honor academic pledge, focused on valuing academic integrity and honest work ethics at Michigan State University. The pledge reads as follows:

“As a Spartan, I will strive to uphold values of the highest ethical standard. I will practice honesty in my work, foster honesty in my peers, and take pride in knowing that honor is worth more than grades. I will carry these values beyond my time as a student at Michigan State University, continuing the endeavor to build personal integrity in all that I do.”

Accommodations

Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at rcpd.msu.edu. Once your eligibility for an accommodation has been determined, you will be issued a verified individual services accommodation ("RISA") form. Please present this form to Dr. Hamm at the start of the term and/or two weeks prior to the accommodation date (test, project, etc.). Requests received after this date will be honored whenever possible.

Bereavement:

Michigan State University is committed to ensuring that the bereavement process of a student who loses a family member during a semester does not put the student at an academic disadvantage in their classes. If you require a grief absence ([Grief Absence Policy](#)), you should complete the “[Grief Absence Request](#)” no later than one week after knowledge of the circumstance. I will work with you to make appropriate accommodations so that you are not penalized due to a verified grief absence.

Drops and Adds

The last day to add this course is September 4th at 8PM. The last day to drop this course with a 100 percent refund and no grade reported is September 23th at 8 PM. The last day to drop this course with no refund and no grade reported is October 16th at 8 PM. You should immediately make a copy of your amended schedule to verify you have added or dropped this course.

Commercialized Lecture Notes

Commercialization of lecture notes and university-provided course materials is not permitted in this course.

Attendance

Students whose names do not appear on the official class list for this course may not attend this class. Students who fail to attend the first four class sessions or class by the fifth day of the semester, whichever occurs first, may be dropped from the course. This course follows the General University Attendance Policy. If you miss a class due to a Special Consideration Absence as defined by University Policy, your class participation grade for those excused absences days will be the average of your earned participation grades.

Internet

Some professional journals will not consider a submission for publication if the article has appeared on the Internet. Please notify your instructor in writing if you do not want your course papers posted to the course Web site.

Disruptive Behavior

Article 2.III.B.4 of the Academic Freedom Report (AFR) for students at Michigan State University states: "The student's behavior in the classroom shall be conducive to the teaching and learning process for all concerned." Article 2.III.B.10 of the AFR states that "The student has a right to scholarly relationships with faculty based on mutual trust and civility." General Student Regulation 5.02 states: "No student shall . . . interfere with the functions and services of the University (for example, but not limited to, classes . . .) such that the function or service is obstructed or disrupted. Students whose conduct adversely affects the learning environment in this classroom may be subject to disciplinary action through the Student Faculty Judiciary process.

Campus Emergencies

If an emergency arises in this classroom, building or vicinity, your instructor will inform you of actions to follow to enhance your safety. As a student in this class, you are responsible for knowing the location of the nearest emergency evacuation route or shelter. These directions appear on the maps posted on the walls throughout this building. If police or university officials order us to evacuate the classroom or building, follow the posted emergency route in an orderly manner and assist those who might need help in reaching a barrier-free exit or shelter. To receive emergency messages, set your cellular phones on silent mode when you enter this classroom. If you observe or receive an emergency alert, immediately and calmly inform your instructor. (See also www.alert.msu.edu.)

E-Learning Policies

Information technologies such as D2L and email are widely used in this class. As a result there are some additional policies that need to be understood:

- Students should visit the course's D2L site on a regular basis.
- Students should check their email frequently (all class email is sent to the student's official MSU email account).

- All assignments submitted electronically, either on disk or via email, should be free of any viruses and/or worms. Any infected file or media that is submitted will receive a zero (0) for that assignment.
- This course recognizes the students' right to privacy and adheres to the Family Educational Rights and Privacy Act (FERPA).
- Students need to review the university policy "Acceptable Use of Computing Systems, Software, and the University Digital Network" at <http://lct.msu.edu/guidelines-policies/aup/>.
- Excessive emails make an unreasonable time demands on both sender and recipient. Please ensure you have a legitimate need before you write.
- Dr. Hamm will answer email about:
 - Questions arising from difficulty in understanding course content.
 - Requests for feedback about graded assignments.
 - Private issues appropriate for discussion within the teacher-student relationship.
- Dr. Hamm will NOT answer email which:
 - Poses questions answered in the course information sections of the course D2L site
 - Poses questions answered in the course syllabus.
 - Lacks a subject line clearly stating the purpose of the email and the course number (CSUS200).
 - Raises an inappropriate subject.
- Dr. Hamm will make every effort to answer email received on a given day no later than close of work on the next workday.
- The Web site tech.msu.edu provides a number of information technology resources for students.
- You are responsible for the operation of any personally owned computers you use on or off campus. A malfunctioning computer system is NOT a valid excuse for submitting late work.
- Students are expected to have a high degree of self-motivation and self-direction in this class and develop the needed technology skills to excel in this class and in life.