

CSUS 300-002
Theoretical Foundations of Sustainability

Spring 2021, Tuesday and Thursday 10.20 – 11.40am Eastern

Instructor: Dr. Jenny Hodbod

Pronouns: She/her

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COVID-19: You are trying to learn – and I am trying to teach – during a global pandemic. Therefore, flexibility and adaptability will be very important. Usually I'm pretty strict on attendance, assignments etc. and I hold myself to the same high standard that I hold my students too. But there's a pandemic so let's just all agree to try our best. I've written in some flexibility into the attendance and grading policies below, but the best solution is to just let me know about any needs or constraints. And similarly, I hope you'll be patient with me if needed.

Class Scheduling: This is an **online synchronous class** and our two class sessions are: Tues/Thu 10.20 - 11.40am Eastern. However, I know that delivering lecture content via an 80-minute zoom is not the best practice for your learning. Therefore, we will have two modes of delivery in this class: 4-6 asynchronous short (~10 minute) lectures per week and **one synchronous class session** for discussion and activities. I will upload the lectures and readings the weekend before the relevant week. Each week will have the same structure:

	Tasks
Monday	Submit homework from previous week (if applicable).
Tuesday	Watch videos and complete readings during class period; also Student Hours.
Wednesday	Prepare for participation activity (if applicable).
Thursday	Zoom class for activities and discussion.
Friday	Submit participation activity documentation and quiz.

- **Tuesdays:** While you can watch the lecture videos whenever you like before the Thursday class, I wanted to keep the Tuesday slot free for you to do so. However, it is also available for you as student hours to book one-on-one meetings with me if you have any questions about assignments etc. I also welcome substantive questions about the material and encourage you to ask them!
 - To book an appointment on Tuesday please use: <https://calendar.google.com/calendar/u/0/selfsched?sstoken=UUo1OUtrQUR5OW9RfGRIZmF1bHR8YjI2MTFjOTZmNGNlMzkzYzk0NTNmODVlZjhjNWQwY2M>
 - All student hours meetings will be via Zoom <https://msu.zoom.us/j/97266269104> Passcode: Hodbod
 - If you have wifi connectivity issues you can connect to Zoom by phoning [+1 312 626 6799](tel:+13126266799), Meeting ID: 972 6626 9104
 - If this time doesn't suit, I welcome meeting at other times - please contact me by email to arrange a time. Or please feel free to email me with questions, I will do my best to answer all questions within 24 hours. **All email should include a subject line clearly stating the purpose of the email and the course number (CSUS 300).** If the question is answered in the syllabus or on the D2L site I will point you there.
- **Thursday:** These are our activity sessions, intended to help you implement/practice/reflect on the content from the lectures; you should watch all lecture content and complete all readings before the Thursday session. All Thursday sessions will be recorded through Zoom and deposited in D2L afterwards.

- All Thursday classes will be hosted on Zoom <https://msu.zoom.us/j/92246801354> Passcode: CSUS300 (**note different address/passcode to Office Hours**).
 - If you have wifi connectivity issues you can connect to Zoom by phoning [+1 312 626 6799](tel:+13126266799), Meeting ID: 922 4680 1354

Note: You must be signed in via MSU to access the online Zoom room. If you are out of the US but want to call in, check MSU's [Zoom](#) page for local numbers.

In case there are any major issues with Zoom, our back up video conferencing will be [Teams](#): (<https://teams.microsoft.com/l/team/19%3a6ba2d4b18e754e968d3e0ff2322722ed%40thread.tacv2/conversations?groupId=90fb8825-9e5f-4ead-b076-f039e2d64a00&tenantId=22177130-642f-41d9-9211-74237ad5687d>). I will inform you by email and D2L before switching to Teams.

Catalog Course Description: Foundations of sustainability theory. History and evolution of interdisciplinary thought about sustainability. Principles of systems thinking as applied to complex problems. Application of theory in community systems.

Course Learning Outcomes: Students who complete this course will:

1. Demonstrate the ability to frame complex problems from a systems perspective.
2. Distinguish between and connect functional integrity and resource sufficiency as global perspectives on sustainability.
3. Describe and demonstrate understanding of evolutions in the thinking about sustainability in various disciplinary/theoretical contributions (economics, ecology, ethics, epistemology).
4. Discuss sustainability critically as a wicked problem, drawing from two or more paradigms for sustainability.
5. Explain the importance to sustainability of embracing multiple knowledge cultures/ways of knowing.

These course outcomes support the Department of Community Sustainability undergraduate program competencies of critical thinking, systems thinking, and ethics. Successful completion of this course provides students with the background needed to frame complex problems and address them systemically in order to successfully complete additional courses in the major. Students can learn more about the Department of Community Sustainability undergraduate program competencies at http://www.csus.msu.edu/undergraduate/sustainability_core. In addition, this course supports Michigan State University's Undergraduate Learning Goals of analytical thinking and integrated reasoning. More information about MSU's Undergraduate Learning Goals is available at <http://learninggoals.undergrad.msu.edu/>.

Course Overview: As the title implies, this course will introduce students to some bodies of theory that provide foundations for understanding, pursuing practical objectives of, and researching new approaches to sustainability. Sustainability is generally understood to require integration of theory and methods from a number of different scientific disciplines. Our approach is to suggest that two paradigms guide sustainability science today. One is grounded in the debate over limits to economic growth and the indefinite expansion of resource utilization implied by global economic development and increasing human population. Another is grounded in both social and environmental scientists' growing understanding of the fragility and vulnerability of the socio-technical and ecological systems on which human beings depend. These paradigms are not unrelated. Both have been influenced by the development of general systems theory since World War II. But the first, which we will call *resource sufficiency*, understands systems as engines that generate useful products and services, while the second, which we will call *functional integrity*, sees systems as having intrinsic value, or at least as being important in and of themselves. A possible third way lies in process-oriented adaptations of systems theory: the emphasis is on using systems thinking to better engage and respect participants and affected parties. The course will emphasize the role systems thinking and stock and flow systems modeling as

it has been developed for applications in economics, ecology, and natural resource management. Sustainability modeling will be discussed in connection with views on the role and function of scientific models, on the one hand, and ethical worldviews, on the other. Students will learn to develop non-quantitative stock and flow models of systems and to discuss how system structure does and does not contribute to the sustainability of the system in question.

Course Methods: We will rely heavily on reading and class discussion of materials that articulate and analyze the key theoretical concepts and perspectives noted above. We will also use case studies as ways to both motivate and explore the implications of different theoretical approaches to sustainability. In addition, a series of in-class exercises will demonstrate complexities of key systems. Student performance will be evaluated in accordance with the activities discussed below.

Required Materials:

- Book: Meadows, D. 2008. *Thinking in Systems: A Primer*. White River Junction, VT: Chelsea Green Publishing.
- Access to Desire to Learn (D2L)
 - The Meadows book will be supplemented with articles and reports posted on the CSUS D2L 300-002 site (<https://d2l.msu.edu>) and this will be where assignments are posted/submitted.
- Access to Zoom (can be by phone)
- Access to Stella Online – please sign up for the free version here: <https://www.iseesystems.com/store/products/stella-online.aspx>
 - If this is difficult with your technology you can use any form of mind mapping software (i.e., Mental Modeler, [Miro](#), XMind, Padlet) OR submit photos of hand drawn versions.
- Access to Microsoft Office or equivalent – homeworks and exams must be submitted as word/excel docs for windows or PDFs (NOT Mac-only documents such as .pages).

Assessment:

Homework	100 points	20%
Preparation and participation	100 points	20%
Quizzes	100 points	20%
Midterm examination	100 points	20%
Final examination	100 points	20%
TOTAL	500 points	100%

Homework (100 points possible): Homework is written work to be done outside of class and consists of five equally weighted assignments worth 20 points each. Homework assignments will be posted and submitted via D2L. Some assignments will be based on work being discussed in class and some will require additional out of class research.

Preparation and Participation (100 points possible): Your **active** participation in class on Thursdays is expected. Participation includes being prepared for class by completing the assigned lectures and readings **before class** and participating in the in-class activities. All completed participation activities should then be submitted by that Friday at 11.59pm. All participation material will be graded pass/fail. There are 12 participation sessions in our class, and each week’s participation activity is worth 5 points (60 total).

I anticipate some of you will have issues occasionally at that time due to connectivity, technological, or family responsibility issues and I want to build some flexibility into our course. Therefore, **I will not be taking attendance in the Thursday classes**. Instead, you will be asked to submit one of the session’s completed activities to D2L. All activities will be available on D2L before the class session in case you cannot make it, so you can follow along individually at another time.

However, there are three sessions where I expect full attendance and where missing class will lead you to miss points: Three sessions are organized as “Prepared Discussions” (**18th Feb, 18th March, 1st April**). We will also have a practice on 21st Jan that will not be graded. On each of these days, you can earn up to 10 extra points (40 total) by demonstrating that you are prepared to participate actively in the discussion. For these sessions, you will be given the questions in advance and will need to prepare your responses **before the Thursday session**. You will then use them to inform small-group discussion in the zoom session. I will move between the small groups listening to the conversation and your grade for each prepared discussion will be based on **mine and your group’s** impressions of your participation according to the following scale:

- *Highly Substantive*: 9-10 points—comments that do a very good job of addressing the point under discussion and, in the case of a reply, that makes a constructive and helpful comment (critical or not) that build upon someone’s earlier comment (i.e., more than just “I agree with...”. You can agree, but your argument needs to add something, not just duplicate what was already said.).
- *Adequate*: 7-9 points—comments that are on point but less constructive.
- *In the ballpark*: 5-7 points—comments that are recognizably addressing topics related to the class but are not linked with the conversation.
- *No, not really*: 0-5 points—comments that are incorrect, inadequately explained, or not meaningful.

We will use CATME for peer review, and the peer assessment must be completed by 11.30pm on Friday, as must the notes you used, as proof of participation.

Quizzes (100 points possible): In 12 weeks of our normal content (i.e., not the weeks with breaks in them (weeks 1, 8, and 15)) there will be a ten-question multiple choice quiz to check your familiarity with the reading and lecture content and your comprehension of the learning objectives. Quizzes will be launched on D2L on Monday’s class session and due by Friday 11.59pm. I recommend waiting until after the Thursday session but it’s up to you. **You can use reading or lecture materials to answer the questions, but each quiz can only be taken once**. Each quiz is worth 10 points. The highest 10 scores will count towards your final grade (**i.e., the lowest two will be dropped**).

Midterm and Final Exams (200 points possible): There will be two exams, each worth 100 points. The midterm will be done in place of the zoom class session on **March 4th** (after the break on March 2nd and 3rd). The final will be done on **Apr 30th** (final exam week). **Both exams will launch on D2L at 7am and must be submitted (again, via D2L) by 7pm**. The exams have been designed to be feasible within our pre-determined exam sessions of 10.20-11.40am on March 4th and 7.45-9.45am on April 30th. Please don’t feel like you have to write for any longer! However, I will give you a 12-hour period to complete the exams in simply to give you flexibility of when you take the exam. If you must miss an exam, please inform the instructor as soon as you are aware of the conflict so that appropriate arrangements or accommodations can be made.

Both exams will be open book – students will be provided with areas to focus on prior to the exam and a preparation session. I will give I don’t mind if you type up your answers or submit photos of handwritten answers. I will suggest word counts but for guidance only – I will not adjust my grades based on being under or over them. Answers that fully address all elements of the question in a clear and succinct way are always preferred!

Citations and References: All sources of information, data, facts, or ideas presented in written work should be cited, and a list of all cited references should be provided. The APA format should be used for any in-text citations and reference lists when you rely on information from other sources for writing homework assignments. A good reference site for APA style can be found at <https://owl.english.purdue.edu/owl/resource/560/01/>.

Assignment Submissions and Late Work Policy: Deadlines for all assignments will be posted on D2L. Deadlines will remain the same through the semester - 11.59pm on Fridays of the week listed for participations activities/quizzes and 11.59pm Mondays of the following week for homeworks, so you have chance to ask any questions about the assignment in class that week. If you do not think you will be able to meet a deadline, **please talk to me about a revised deadline.** If we do not have an arrangement, submission of assignments after the assigned deadline will result in a reduction of the maximum score by 10% for each 24 hours beyond the deadline. So, for example, the grade for an assignment with 10 points due but not submitted by 11.30pm on Oct 11 would be able to score a maximum of 9 points so long as it is submitted by 11.59pm on Oct 12. After that, the maximum grade will be reduced by 10% further, so long as it is submitted by 11.59 p.m. on Oct 13, etc. However, **everyone gets one free pass to submit an assignment late with no reduction in grade and no explanation necessary.** If you arrange an alternate deadline with me, you still have your free pass.

Assignment	Points	Due (via D2L unless otherwise stated)
Participation	60	Every Friday 11.30pm
Quizzes	100	Every Friday 11.30pm
Prepared Discussion #1	10	Thursday 21 st January in class
Homework #1	20	Monday 25 th January, 11.30pm
Homework #2	20	Monday 8 th February, 11.30pm
Prepared Discussion #2	10	Thursday 18 th February in class
Midterm Exam	100	Thursday 4 th March, 7am – 7pm
Prepared Discussion #3	10	Thursday 18 th March, in class
Homework #3	20	Monday 22 nd March, 11.30pm
Prepared Discussion #2	10	Thursday 1 st April, in class
Homework #4	20	Monday 5 th April, 11.30pm
Homework #5	20	Monday 19 th April, 11.30pm
Final Exam	100	Friday 30 th April, 7am – 7pm
TOTAL	500	

Grade Assignments:

Grade	Percentage
4.0	93 - 100%
3.5	87.5 - 92.9%
3.0	82.5 - 87.4%
2.5	77.5 - 82.4%
2.0	72.5 – 77.4%
1.5	67.5 – 72.4%
1.0	62.5 – 67.4%
0.0	under 62.4%

Course Policies

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. The three-day grace period is expected to cover university excused absences including illness, family emergencies and university sanctioned activities such as student clubs, organizations or activities associated with other classes. It is also expected to cover absences that occur because of late enrollment in the class, and other exigencies that students experience throughout the semester. There will not be exceptions to this policy except in extremely unusual circumstances. If you

anticipate problems complying with this requirement, *notify the instructor as soon as you become aware of the problem!* It is not necessary to notify the instructor or present excuses for specific absences. If you miss a class due to a Special Consideration Absence as defined by University Policy, your class participation grade for those excused absence days will be the average of your earned participation grade.

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 should be free of any viruses and/or worms. Any infected file 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). **We will use technology for virtual meetings and may create recordings of classes in this course.** Our use of such technology is governed by FERPA, the [Acceptable Use Policy](#) and PSU’s [Student Code of Conduct](#). A record of all meetings and recordings is kept and stored by MSU, in accordance with the Acceptable Use Policy and FERPA. I will not share recordings of your class activities outside of course participants, which include your fellow students and any guest faculty or community-based learning partners that we may engage with. **You may not share photos or recordings outside of this course. Doing so may result in disciplinary action.**
 - You have the option to appear in an audio-only mode, such that your webcam is disabled (turned off) during the class.
 - You have the option to access Zoom class sessions using a pseudonym. In order to facilitate class participation, you are expected to communicate any pseudonym to your instructor in advance of the class.
- Students need to review the university policy “Acceptable Use of Computing Systems, Software, and the University Digital Network” at <http://ict.msu.edu/guidelines-policies/aup/>.
- 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.
- CSUS 300 Turnitin Policy:
 - Consistent with MSU’s efforts to enhance student learning, foster honesty, and maintain integrity in our academic processes, instructors 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, the instructor 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.
 - Students should submit papers to Turnitin Dropboxes without identifying information included in the paper (e.g. name or student number – i.e. using the title protocol outlined above). 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.

Diversity Equity and Inclusiveness: Diversity, Equity and Inclusion are important, interdependent components of everyday life in the College of Agriculture and Natural Resources (CANR) and are critical to our pursuit of academic excellence. Our aim is to foster a culture where every member of CANR feels valued, supported and inspired to achieve individual and common goals with an uncommon will. This includes providing opportunity

and access for all people across differences of race, age, color, ethnicity, gender, sexual orientation, gender identity, gender expression, religion, national origin, migratory status, disability / abilities, political affiliation, veteran status and socioeconomic background. (See the full CANR statement: <https://www.canr.msu.edu/news/canr-statement-on-diversity-equity-and-inclusion>)

Commit to Integrity: Academic Honesty: Article 2.3.3 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, CSUS 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 this course. 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 the [Academic Integrity](#) webpage.)

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. **There will be no warnings – the maximum sanction allowed under University policy will occur on the first offense.** See also <https://www.msu.edu/~ombud/academic-integrity/index.html>.

Inform Your Instructor of Any Accommodations Needed: From the [Resource Center for Persons with Disabilities](#) (RCPD): "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 <http://rcpd.msu.edu>. Once your eligibility for an accommodation has been determined, you will be issued a Verified Individual Services Accommodation ("VISA") form". **Please present this form to me at the start of the term and/or two weeks prior to the accommodation date (test, project, etc.). Requests received after this date may not be honored.**

General College and University Policies: All other general college and university policies applicable to this course are available at <https://www.canr.msu.edu/academics/courses/policies>. Please review these policies. Topics covered in these general policies include:

- Students with disabilities, Resource Center for Persons with Disabilities (RCPD) and accommodations
- Student rights under the family educational rights and privacy act (FERPA)
 - Student release authorization form
- Religious holiday policies
- Grief absence policies
- Students in distress policies
- MSU student athlete policies
- Course add-drop policies
- Honors options
- Course Management system policies
- Final exam policy and attendance
- Grade dispute policies
- Academic honesty and integrity, plagiarism, and disciplinary procedures

- Disruptive behavior
- Harassment and discrimination policies
- RVSM University reporting protocols
- Limits to confidentiality
- Social media policy
- Web accessibility policies
- MSU Code of Teaching Responsibility
- SIRS
- Commercialization of lecture notes
- University Learning Goals

Understand When You May Drop This Course: It is the student's responsibility to understand when they need to consider un-enrolling from a course. Refer to the [Michigan State University Office of the Registrar](#) for important dates and deadlines. The last day to add this course is the end of the first week of classes. The last day to drop this course with a 100 percent refund and no grade reported is 01/25/2021. The last day to drop this course with no refund and no grade reported is 2/12/2021. You should immediately make a copy of your amended schedule to verify you have added or dropped this course.

Mandatory Reporting: Michigan State University is committed to fostering a culture of caring and respect that is free of relationship violence and sexual misconduct, and to ensuring that all affected individuals have access to services. For information on reporting options, confidential advocacy and support resources, university policies and procedures, or how to make a difference on campus, visit the Title IX website at titleix.msu.edu.

Limits to confidentiality. Essays, journals, and other materials submitted for this class are generally considered confidential pursuant to the University's student record policies. However, students should be aware that University employees, including instructors, may not be able to maintain confidentiality when it conflicts with their responsibility to report certain issues to protect the health and safety of MSU community members and others. As the instructor, I must report the following information to other University offices (including the Department of Police and Public Safety) if you share it with me:

- Suspected child abuse/neglect, even if this maltreatment happened when you were a child;
- Allegations of sexual assault, relationship violence, stalking, or sexual harassment; and
- Credible threats of harm to oneself or to others.

These reports may trigger contact from a campus official who will want to talk with you about the incident that you have shared. In almost all cases, it will be your decision whether you wish to speak with that individual. If you would like to talk about these events in a more confidential setting, you are encouraged to make an appointment with the MSU Counseling and Psychiatric Services.

Syllabus Disclaimer: All syllabi are subject to minor changes to meet the needs of the instructor, school, or class. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. The instructor reserves the right to make changes to the syllabus as deemed necessary. Students will be notified in a timely manner of any syllabus changes through the course site announcements. Please remember to check your MSU email and the course site announcements often.