



Introduction to Sustainability

AGNR/PLCY

301

Fall 2019

Learning Outcomes

Our species faces unprecedented challenges in the 21st century as we redesign our way of life given the planet's finite resources. What is your role on a changing planet? How can you contribute to a more sustainable planet? This course introduces students to sustainability concepts, including environmental, social and economic sustainability.

After successfully completing this course you will be able to:

- **define and describe sustainability** including environmental, social and economic sustainability
- **describe** methods of assessing sustainability
- **explain** the historical context of our current socio-economic paradigm
- **analyze** the economic, social, and moral implications of global resource use
- **describe** the major sustainability problems facing the United States and the world, the causes of these problems, and potential solutions
- **describe** the connections between food, water, and energy sustainability
- **apply** course concepts to real world challenges through writing essays, homework and exercises

Required Resources

Course website: elms.umd.edu

Required Textbook

Wessels, Tom (2013). *The Myth of Progress: Toward a Sustainable Future*. University Press of New England: New York City. ISBN: 1611684161.

Clickers

We will be using clickers in this course. You have the option of purchasing a clicker from the bookstore, or using the app on your phone.

Dr. Caroline Boules

cboules@umd.edu

Class Meets

Tuesdays & Thursdays
12:30-1:45 LEF 2205.

Prerequisites NA

Teaching Assistants

Tihitina Andarge

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Office Hours

Dr. Boules

0222 Symons Hall

Tu/W/Th by appointment

Tina: Tues. 9:30-11:30am

Jack: Mon. 10am-12pm

ENSP 0220

Course Communication

I will send time-sensitive information to students mostly as ELMS

announcements, so you need to log in and check ELMS at least once a day. The best way to contact me is to email me, send a message through ELMS, or come by my office hours. Here is a link with helpful guidance on writing professional emails:

ter.ps/email.

Other Resources we will use

[The Post Carbon Reader: Managing the 21st Century's Sustainability Crises \(2010\)](#). Most chapters are available online for free.

Worldwatch Institute, State of the World 2013. Is Sustainability Still Possible?

<https://islandpress.org/books/state-world-2013>

Free online:

[http://library.uniteddiversity.coop/More Books and Reports/State of the World/State of the World 2013-Is Sustainability Still Possible.pdf](http://library.uniteddiversity.coop/More_Books_and_Reports/State_of_the_World/State_of_the_World_2013-Is_Sustainability_Still_Possible.pdf)

Sustainability Minor

<https://spp.umd.edu/your-education/undergraduate/minors>

Contact us at susminor@umd.edu

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Course Description

This course is the foundational course in the University of Maryland's Sustainability Minor, a fifteen-credit-hour whole-campus interdisciplinary program hosted jointly by the School of Public Policy and the Environmental Science and Policy Program in the College of Agriculture and Natural Resources. Our species faces unprecedented challenges in the 21st century as we redesign our way of life given the planet's finite resources. This course will provide students with a general knowledge of sustainability concepts, including environmental, social and economic sustainability. Topics will include: ethical foundations, systems thinking, ecological limits and GDP, biodiversity, food, water, energy, climate change, social justice, urban sustainability, waste, sustainable design. We will also learn about how to move forward to create a more sustainable world, and what each individual can do to contribute.

The course will be a mixture of lectures, discussion, and in-class activities. Grades will be based on a midterm exam, a final exam, in-class activities, homework assignments and short papers (see detailed assignment list below).

Course Requirements, Grading and Expectations for Students

The instructor will post all course materials and critical course information on the ELMS/Canvas system <http://elms.umd.edu>, so it is important that you use this system. Please note that they will also communicate with the class through ELMS regarding any class cancellations, changes in meeting times, or room changes. Please be sure that your preferred and current e-mail address is listed in the Directory, and that email notifications are enabled for ELMS. You can check and update this information by going to Testudo (www.testudo.umd.edu/apps/saddr/).

You will have the opportunity to earn up to 1000 points based on the following:

<u>Type of work</u>	<u>Points/unit</u>
• Midterm Exam	200
• 5 In-class activities, quizzes (20 pts each)	100
• 2 Homework assignments (100 pts each)	200
• Reflection Essay	100
• Research Paper	200
• Final Exam	200
TOTAL	<u>1000</u>

Grades

Grades will be awarded by converting the points earned into a percentage. 100-98% = A+, 97-92 = A, 91-90 = A-; 89-88 = B+, 87-82 = B, 81-80 = B-; 79-78 = C+, 77-72 = C, 71-70 = C-; 69-68 = D+, 67-62 = D, 61-60 = D-; ≤ 59 = F. You may calculate your percentage grade at any time during the semester by dividing the number of points earned by the number of points possible at that point in the semester. Please see me if you have any questions.

Grades are not given, but earned. Your grade is determined by your performance on the learning assessments in the course and is assigned individually (not curved). If earning a particular grade is important to you, please speak with me at the beginning of the semester so that I can offer some helpful suggestions for achieving your goal.

All assessment scores will be posted on the course ELMS page. If you would like to review any of your grades (including the exams), or have questions about how something was scored, please email me to schedule a time for us to meet in my office. If you would like to **appeal any grade** that you have received in this course, you may file an appeal within one week of the return of the assignment. Please submit a typed explanation of the reason why you think your grade should be changed, and deliver it to the instructors mailbox in the ENSP Office (Symons 0220).

Final letter grades are assigned based on the percentage of total assessment points earned. To be fair to everyone I have to establish clear standards and apply them consistently, so please understand that being close to a cutoff is not the same this as making the cut (89.99 \neq 90.00). It would be unethical to make exceptions for some and not others.

Assignment Descriptions

Homework Assignments

There will be two homework assignments during the semester. These will be based on the readings and the class material, and will be short answer format. They are worth 100 points each.

In-class activities and quizzes

Five times during the semester there will be an unannounced graded assignment or short quiz during class. These will be based on the readings and if you have been attending class and doing the reading, they should not be a challenge. They are worth 20 points each.

Reflection Essay

There will be one short (2-3 pages) reflection writing assignment based on the readings and course material. The writing prompt will be assigned on the date listed in the syllabus. It is worth 100 points.

Sources and Destinations Research Paper

In this essay, you will engage in sustainability scholarship by carefully researching the source(s) of everything in some item you consume in your everyday life—for example, your breakfast cereal, your shoes, your shampoo. You will also research, as appropriate, what happens to this item after you finish with it. Your challenge will be to deal with both the ecological and social impacts of the item you study. You will receive detailed instructions for this assignment.

Further detail on each of the assignments, including rubrics for the larger assignments, will be made available throughout the semester on the ELMS/Canvas system. Due dates and times will be posted on ELMS as well as listed on the course schedule below. Please remember that final grades for this course are earned through individual assignments. Unless otherwise noted, all assignments should be submitted electronically via the ELMS/Canvas system.

Campus Policies

It is our shared responsibility to know and abide by the University of Maryland's policies that relate to all courses, which include topics like:

- Academic integrity
- Student and instructor conduct
- Accessibility and accommodations
- Attendance and excused absences
- Grades and appeals
- Copyright and intellectual property

Please visit www.ugst.umd.edu/courserelatedpolicies.html for the Office of Undergraduate Studies' full list of campus-wide policies and follow up with me if you have questions.

Course-Specific Policies

Laptops are permitted in class for note-taking purposes only. I expect you to make the responsible and respectful decision to refrain from using your cellphone in class. If you have critical communication to attend to, please excuse yourself and return when you are ready. For more information about the science behind the policy watch: <http://youtu.be/WwPaw3Fx5Hk>

For this course, some of your assignments will be collected via Turnitin on our course ELMS page. I have chosen to use this tool because it can help you improve your scholarly writing and help me verify the integrity of student work. For information about Turnitin, how it works, and the feedback reports you may have access to, visit [Turnitin Originality Checker for Students](#).

Clickers

We will be using clickers in this course, so you will need to either purchase a clicker from the bookstore, or download the TurningPoint App on your smartphone, or participate via this link: tppoll.com. I have enabled clickers on ELMS so you need to register there. We will discuss more in the first two classes and we will make sure everyone knows how to use this..

Late Policy

All papers and assignments are due on the designated date. Unless you see me in advance of the due date and obtain an approved extension, 5 percent of the total possible points will be deducted from your score for every day the paper or assignment is late, including weekend days. (So, for example, on a 100-point scale, a student who would have earned a 94 on a timely paper will earn 89 if the same paper is turned in one date late, 84 if turned in 2 days late, etc.). Late discussion questions will receive 0 points.

Attendance and Absences

In accordance with University policy, students are expected to attend classes regularly and on-time. Please email me ahead of time if you will need to miss class. An absence will only be considered “excused” under the circumstances described by the University’s attendance policy, available at: <https://president.umd.edu/sites/president.umd.edu/files/files/documents/policies/V-100G.pdf>.

Academic Accommodations

If you have a documented disability, please contact Disability Support Services 0126 Shoemaker Hall to apply to DSS for accommodation request forms which you can provide to me (and your other instructors) as proof of your eligibility for accommodations. The rules for eligibility and the types of accommodations a student may request can be reviewed on the DSS website at <http://www.counseling.umd.edu/DSS>. Please submit your paperwork to me as soon as possible and well before any due date or exam to ensure that any accommodation needs can be satisfied.

Names/Pronouns and Self Identifications

The University of Maryland recognizes the importance of a diverse student body, and we are committed to fostering equitable classroom environments. I invite you, if you wish, to tell us how you want to be referred to both in terms of your name and your pronouns (he/him, she/her, they/them, etc.). The pronouns someone indicates are not necessarily indicative of their gender identity. Visit trans.umd.edu to learn more.

Additionally, how you identify in terms of your gender, race, class, sexuality, religion, and dis/ability, among all aspects of your identity, is your choice whether to disclose (e.g., should it come up in classroom conversation about our experiences and perspectives) and should be self-identified, not presumed or imposed. I will do my best to address and refer to all students accordingly, and I ask you to do the same for all of your fellow Terps.

Respect in the Classroom

In order to learn, we must be open to the views of people different from ourselves. In this time we share together over the semester, please honor the uniqueness of your fellow classmates and appreciate the opportunity we have to learn from one another. Please respect each others’ opinions and refrain from personal attacks or demeaning comments of any kind.

Instructor responsibilities:

- Start and end class on time.
- Treat all students with courtesy and respect.
- Be open to constructive input from students in the course.
- Ensure that opportunities to participate are enjoyed equally by all students in the course.

Student responsibilities:

- Come to class on time, and refrain from packing up belongings before class ends.
- Read all of the assigned readings for that class period ahead of time, and be prepared to discuss the topics of the day.
- Turn off all electronic devices that might create a disruption in class.
- Be quiet and give full respectful attention while either instructor or another student is speaking.
- When speaking, use courteous, respectful language and keep comments and questions relevant to the topic at hand.

Get Some Help!

You are expected to take personal responsibility for your own learning. This includes acknowledging when your performance does not match your goals and doing something about it. Everyone can benefit from some expert guidance on time management, note taking, and exam preparation, so I encourage you to consider visiting <http://ter.ps/learn> and schedule an appointment with an academic coach. Sharpen your communication skills (and improve your grade) by visiting <http://ter.ps/writing> and schedule an appointment with the campus Writing Center. Finally, if you just need someone to talk to, visit <http://www.counseling.umd.edu>.

Everything is free because you have already paid for it, and **everyone needs help**...all you have to do is ask for it.

Basic Needs Security

If you have difficulty affording groceries or accessing sufficient food to eat every day, or lack a safe and stable place to live and believe this may affect your performance in this course, please visit go.umd.edu/basic-needs for information about resources the campus offers you and let me know if I can help in any way.

Course Schedule

Week	Date	Topic	Assignment/Reading Due
UNIT 1: SUSTAINABILITY FOUNDATIONS, DEFINITIONS AND HISTORY			
1	8/27	Review syllabus and course goals; Overview of course.	
	8/29	Definitions & History of Sustainability; Dimensions of Sustainability	<ul style="list-style-type: none"> • Edwards Ch. 1: "The Birth of Sustainability." • R. Engelman, "Beyond Sustainability" • D. Orr, "What is Education For?" <p>Further Reading:</p> <ul style="list-style-type: none"> • Goodland (2002). Sustainability: Human, Social, Economic and Environmental.
2	9/3	Ideas of Nature/Ethical & Foundations of Environmentalism and Sustainability	<ul style="list-style-type: none"> • Sylvan (1973). Is there a need for a new, an environmental ethic? • Aldo Leopold, "The Land Ethic" • Ramachandra Guha, "Radical American Environmentalism and Wilderness Preservation"
	9/5	Systems Thinking	<ul style="list-style-type: none"> • Wessels Ch. 1 • McDermott, Art of Systems Thinking • Capra, Parts to a Whole <p>HOMEWORK 1 ASSIGNED</p>
3	9/10	Ecological Limits/GDP & Growth/ Our dominant socio-economic paradigm	<ul style="list-style-type: none"> • Wessels Ch. 2 • Bernstein: Enough already with GDP, Washington Post, 2018. • GDP RIP, NY Times article 2009.
	9/12	GDP and Growth 2	<ul style="list-style-type: none"> • Ch. from Doughnut Econ. • Speth: Real Growth & Happiness • Heinberg, Beyond the Limits to Growth <p>HOMEWORK 1 DUE</p>
4	9/17	Tragedy of the Commons & Resource Extraction	Guest lecture: Tihitina Andarge
	9/19	Measuring Sustainability & Ecological Footprint	<ul style="list-style-type: none"> • R. Heinberg, "Five Axioms of Sustainability"

UNIT 2: JUSTICE, DIVERSITY, ETHICS			
5	9/24	Environmental, Social and Economic Justice	<ul style="list-style-type: none"> Vandana Shiva. "Principles of Earth Democracy." Earth Democracy: Justice, Sustainability, and Peace. Cambridge: South End Press, 2006. Eric Reese. "Moving Mountains." Orion: January/February 2006. <p>REFLECTION PAPER ASSIGNED</p>
	9/26	Environmental, Social and Economic Justice 2	<ul style="list-style-type: none"> J. Agyeman, "Toward a 'just' sustainability?" G. Walker, "Introduction," p. 1-15 R. Bullard, "Making Environmental Justice a Reality in the 21st Century"
6	10/1	Sustainable Development & the UN SDGs	<ul style="list-style-type: none"> The Community Resilience Reader: Essential Resources for an Era of Upheaval (Chapters 7 and 8, pp. 131-161, ELMS, Course Reserves) UN World Water Development Report Exec. Summary, Section 1.3 pp. 25-33; pp. 49-50 (Section 2.5 only, ELMS, Files)
	10/3	Indigenous Voices	TBD REFLECTION PAPER DUE
7	10/8	Biological & Cultural Diversity	<ul style="list-style-type: none"> Biodiversity Loss and Its Impact on Humanity," Nature Wessels Ch. 4
	10/10	MIDTERM EXAM	
UNIT 3: FOOD, WATER AND ENERGY			
8	10/15	Climate Change/Entropy	<ul style="list-style-type: none"> Wessels Ch. 3 Additional TBD
	10/17	Climate Change 2	<ul style="list-style-type: none"> Ch. 4 "A shared vision? Why inequality should worry us" in: Climate Change, Ethics, and Human Security (ELMS, Course Reserves)

			<ul style="list-style-type: none"> Additional TBD
9	10/22	Food 1	<ul style="list-style-type: none"> Lester Brown, "Could Food Shortages Bring Down Civilization?" Scientific American
	10/24	Food 2	Guest lecture: Jack Murphy
10	10/29	Water	<ul style="list-style-type: none"> "Water: Adapting to the new normal", S. Postel in the Post-Carbon Reader ELMS, Course Reserves) "The Human Sponge" by Fred Pearce from When the Rivers Run Dry ELMS, Course Reserves) <p>HOMEWORK 2 DUE</p>
	10/31	Water 2	TBD
11	11/5	Energy	TBD – selected chapters from STATE OF THE WORLD 2013
	11/7	Food, Water, Energy Nexus	TBD
UNIT 4: URBAN SUSTAINABILITY			
12	11/12	Urban Sustainability: Infrastructure, Transportation	<ul style="list-style-type: none"> "The Death of Sprawl" in the Post-Carbon Reader "Transportation in the Post-Carbon World" in the Post-Carbon Reader
	11/14	Green Architecture & Sustainable Design	<p>McDonough, W., et al. (2003) "Applying the Principles of Green Engineering to Cradle-to-Cradle Design," Environmental Science and Technology 37(23):434A-441A</p> <ul style="list-style-type: none"> Additional TBD <p>RESEARCH PAPER ASSIGNED</p>
13	11/19	Waste Management	TBD

UNIT 5: IMPLICATIONS AND CONCLUSIONS			
	11/21	Alternative Systems	Selections from Next System Project. Selections from STATE OF THE WORLD 2013
14	11/26	Visions of the Sustainable Community	<ul style="list-style-type: none"> McKibben Chapter 3: “All for One, or One for All” Curren, Living Well Now: What does it take? RESEARCH PAPER DUE
	11/28	THANKSGIVING BREAK	
15	12/3	Media, Communication & Behavior Change	<ul style="list-style-type: none"> Chapter 10 of STATE OF THE WORLD 2013 (pp. 113-125) Wessels Ch. 5 & Epilogue
	12/5	Last Day of Class: Wrap-up; Final Exam Review	
FINAL EXAM: MONDAY DEC. 16, 1:30-3:30PM			

Note: This is a tentative schedule, and subject to change as necessary – monitor the course ELMS page for current deadlines. In the unlikely event of a prolonged university closing, or an extended absence from the university, adjustments to the course schedule, deadlines, and assignments will be made based on the duration of the closing and the specific dates missed.