ECO 381
Sustainable Development Principles and Policies

What is sustainability?
In the last half century, this scientific and ethical concept has changed the global environmental movement, international economic priorities, and founded scientific research fields. This course will explore the scientific foundation of environmental, economic and social sustainability, the historical development of the concept. We will the ethical motivations for sustainability, and survey the prospects and challenges in how to define, measure and ultimately achieve sustainable societies. Finally, we will step beyond the abstract academic discussions and do some real science and some real service in our quest to understand sustainability.

Learning Objectives:
In this course you will:
• Assume responsibility for your own learning
• Explain the scientific basis for the sustainability problem
• Differentiate sustainable development from conventional economic development
• Explain, defend and critique various ethical foundations of sustainable development
• Develop leadership and presentation skills by leading class for a day
• Collaborate productively in focused teams
• Help UMaine’s effort to measure its own progress as an institution towards “sustainability”
• Conduct Human Subjects Research on social-environmental patterns across campus
• Employ deft ethical argument and sound reasoning in essay form

Major Assignments:
25% Research Paper – a 6-8 page research paper on a question of sustainability of your choice. This 25% is spread across the final paper and preliminary assignments.
25% Class Work – reading quizzes, in class assignments (accepted during class), active in-class participation and attendance
15% S.T.A.R.S. – your contribution to the University of Maine’s very first self-assessment in pursuit of a STARS rating (aashe.org).
15% Survey – your contribution to a scientific survey of students experiences and attitudes on social-environmental connections.
10% Lead Class – during the ethics unit, you will lead class for a day, in teams. Note that this will count as much as the final exam.
10% Final Exam – open book, open note exam based in part on questions you will write during the semester.
ECO 381 - Details

I take attendance. I give unannounced reading quizzes.
I will hold you to high standards, as you should yourself.

Expectations and Guidelines
In addition to learning the course content, I expect you to learn and practice strong academic skills. Please be prepared to meet the following college-level expectations:

Attendance - please plan to attend all classes, and to sign in before class begins in order to receive credit for being there. Each class that you attend earns you points toward your final grade. If you plan to miss a class, let me know in advance. All absences must be excused. Please also keep in mind that it is your responsibility to find out what you missed, including any assignments and announced due dates, if you are absent. You will lose 2.5% off of your overall grade for each unexcused absence, regardless of the reason.

Timeliness - please arrive on-time or early to each class. Late arrival or early departure will count as an absence.

Deadlines - I do not accept late work. (Extensions are only granted to those who have planned ahead and make the request well in advance of due date.)

Participation - please bring your materials to every class and be ready to participate in class work/discussions, having done the necessary readings. No cell phones, etc.

Originality - please make sure that all submitted work is entirely your own, or that of your group. Plagiarized work will generate an automatic 0 grade. For major assignments, you may work to achieve a failing grade instead via a complete revision, other assignments are not given this option. If you need a refresher on the mathematics of what a 0 does to an average, let me know.

Respect - please plan to be treated and to treat fellow students and the teacher with respect.

Grading – A:90s, B:80s, C:70s, D:60s, F:everything else. minus:0–3, plus:6–10. There is no A+.

Support - the University of Maine offers several great support services for students. Among them are the drop-in UMaine Writing Center, the School of Economics Laboratory & Advising Center, 305 Stevens Hall, my own office hours, and the Services for Students with Disabilities Onward Program, 121 East Annex, 581-2319. I would be happy to help connect you with any of these services if you feel it is needed.

Some of these guidelines and expectations may feel daunting. I will be holding you to a high standard of work and efficiency. My job, however, is to help you to succeed, so please feel comfortable offering me suggestions or asking for help. I have no doubt that all of you have the ability to do well. That is why you are here.
Course Outline:
The course consists of four distinct units.

1 - The Scientific Foundation of Sustainability – We survey science and history of sustainability, and each student begins their own research paper project. We learn the basic economic, ecological, physical dimensions of the planet. We learn to define our terms in general and ‘sustainability’ in particular. This background will frame the concerns from which sustainable development principles evolved, and highlight the relevance of these concepts to current global and political challenges.

2 – The Ethics of Sustainability - We survey selected ethical philosophies of human-environment interaction. From this, we construct an ethical framework that supports a set of sustainable development principles. Here students are pressed to forge beyond the read-and-regurgitate model, and think sharply about how to construct their own synthetic ethical standards in the modern context.

3 – Indicators and Policy - We study the connections to law and policy, note the principles and strategies adopted at the global, national and state levels, and review different schemes of environmental and sustainability metrics and systems. In this unit, we contribute directly to the University of Maine’s STARS self-assessment.

4 – Application and Evaluation - Guest lecturers will lead us on guided tours of current sustainability topics, such as food systems, energy, climate, and development. We discuss each topic as a class, consider relevant readings, and form our own conclusions. Finally, we conduct our own assessment as a class, surveying first year students on their attitudes and perspectives relevant to social and environmental sustainability. The order of presentations within each topic area indicated in the syllabus may be changed to accommodate guest lecturers.