

Environmental Studies 4810: Environmental Sustainability Course Outline - Winter 2023

Wednesdays 2:30pm - 5:30pm (Jan 11 - Apr 5)
Room: RC 2003

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RC 2006A

The concepts and methods of achieving environmental and economic sustainability are examined. Students will explore potential career paths and related work activities that will allow them to assist their future employers in achieving their environmental goals, such as reducing their negative ecological footprint. Students will also explore recent advancements in various technologies or business processes that promote ecological/ environmental sustainability.

Marking Scheme	%	Due Date
Participation (attendance, weekly readings)	20	Weekly
Student-led class reading and discussion	15	Weekly
Research Proposal	15	February 1
Research Paper	30	March 15
Final Research Presentation	20	March 29 & April 5

Proposed Weekly Topics

Week	Topic	Learning Targets
1	What is sustainability?	Definitions of sustainability
2	A brief history of sustainability	Anthropocene; Bruntland commission; Rio earth summit
3	Growth Paradigm	Growth paradigm; Environmental kuznets curve;
4	Sustainability Indicators	Maximum sustainable yield; elements of sustainability
5	Energy Part 1	Energy definition; energy sources over time; CO2
6	Energy Part 2	World energy demand; sources of sustainable energy
7	Water	Hydrological cycle; water consumption; water pollution
8	Agriculture	Agricultural land use; land use per capita
9	Green Building	Energy consumption of buildings; LEED Certification
10	Sustainability Planning and Governance	Sustainable development; role of government
11	Sustainability, economics, global commons	Global commons; env. Economics; externalities
12	Environmental Justice	Modern env. Movement; Indigenous peoples and Env. Justics