Master’s of Environmental Sustainability

List of Elective Courses 2019-2020
Elective courses – Environmental Sustainability

Please find below a list of elective courses approved by The Institute of the Environment for the Collaborative program in Environmental Sustainability and for the M.Sc. in Environmental Sustainability. NOTE: Registering in these courses typically requires the approval of your department as well as the approval of the instructor. These approvals are necessary to ensure that spaces are available and that you have the required background to succeed in the course.

Moreover, if you are aware of additional courses that relate to environmental sustainability and that might be better tailored to your academic goals, don’t hesitate to ask us whether it might be approved as an optional course. We suggest that you submit a copy of the course syllabus with your request. The program’s academic director will be happy to consider it.

Fall 2019

ECO6151A Economics of the Environment
The concept of scarcity rents in static and dynamic settings. Basic property regimes: open access, exclusive access and common property. Policy instruments. The importance of transaction costs. General-equilibrium and political-economic aspects of property regimes. Conflict. Elements of dynamic optimization. Renewable and non-renewable resources. This course is equivalent to ECON 5803 at Carleton University.

ECO 6143 - Economics of Natural Resources
The concept of scarcity rents in static and dynamic settings. Basic property regimes: open access, exclusive access and common property. Policy instruments. The importance of transaction costs. General-equilibrium and political-economic aspects of property regimes. Conflict. Elements of dynamic optimization. Renewable and non-renewable resources. This course is equivalent to ECON 5803 at Carleton University.

SOC7103A Sociology of the Environment
Origins of environmental problems and conflicts; social theories of environmental degradation, controversies and disasters; perspectives on human-nature interactions.

Winter 2020

API6351 - International Economics and Developing Countries
Introduction to the economic analysis of developing countries. The course will address the different tools used to measure economic development as well as the obstacles to growth and development in the Third World. Issue areas considered include macro-economic adjustment, financing development, population growth, human capital, technological progress and facilitating institutions.

DCL5340 - Sustainability and Law
This course provides theoretical perspectives on alternative approaches to environmental policy, emphasizing ethical and economic perspectives.
DVM6102A - Livelihoods, Resources and Sustainability or DVM6502A Modes de vie, ressources et durabilité
Interaction between society and nature. Consideration of how power shapes the use of resources such as land, water, food, or energy, and on how livelihoods adapt to environmental change in various rural and urban contexts. Theoretical lenses include commons theory, social ecological resilience, political ecology, and political economy.

ECO6134 - TOPICS Environmental and Resource Economics
Topics may include international dimensions of environmental regulation, including treaties, competitiveness, and the effects of trade liberalization; development issues, including fiscal sustainability, Dutch disease, the resource curse, and population growth; resource topics, including optimal taxation, green national accounts, sustainability theory, and scarcity of extractive resources. This course is equivalent to ECON 5805 at Carleton University.

EVD5100 - Seminar in Environmental Sustainability
Overview of environmental sustainability issues using climate change as an example. Application of integrated analyses based on concepts in science, law, economics and policy to devise policy solutions. The debate about the scientific evidence for climate change and international efforts to negotiate an agreement. The economic, political and social dimensions of climate change and measures taken both nationally and internationally to mitigate its effects.

EVD5123 - Evidence Synthesis and Evaluation
Reviews different understandings of what constitutes research, both as it pertains to the production of evidence and to the evaluation of existing evidence relating to policy, to regulatory and statutory interventions and to identifying evidence gaps. Students learn research methodologies to design research so as to maximize its evidentiary value (given existing constraints); they will also learn to synthesize and assess the evidentiary value of existing research.

EVD5109 - Applied Environmental Sustainability
Uses an environmental sustainability case study, such as climate change, to learn how to synthesize information about a problem from multiple disciplinary perspectives, to critically evaluate such information using rigorous methodological approaches, and to design and evaluate policy or regulatory solutions.

GEO 5143 - A00 Environmental Isotopes and Groundwater Geochemistry
Geochemistry and environmental isotopes in studies of groundwater dynamics, age and contaminant hydrogeology. Environments from shallow groundwater and surface water to deep crustal brines are examined. Low temperature aqueous geochemistry and mineral solubility with emphasis on the carbonate system. This course is equivalent to ERTH 5403 at Carleton University.

ISP5101 - Decision at the Interface of Science and Policy
This course explores a number of critical issues in the design and implementation of science (or, more generally, evidence)-based policy. Topics will include: the nature of scientific evidence; who has standing in the provisioning of scientific evidence; the science and non-science of risk assessment; ethical dimensions of policy design and implementation; the role of science in policy design and implementation; the policy making process; and science policy performance evaluation.
MCG 5309 – I00  Environmental Fluid Mechanics Relating to Energy Utilization
Characteristics of energy sources and emissions into the environment. The atmosphere; stratification and stability, equations of motion, simple winds, mean flow, turbulence structure and dispersion near the ground. Flow and dispersion in groundwater, rivers, lakes and oceans. Physical and analytical modelling of environmental flows. This course is equivalent to MECH 5009 at Carleton University.

Waiting List – Syllabus Required

Fall 2019
API6739A Thèmes choisis en Aff. Intern.
Thème : Gouvernance globale de la santé

ADM6274 – International E-business Strategies
International trends in the global economy together with assessment of risks, and associated international e-business opportunities. Strategies for translating international opportunities into e-businesses, including localizing international web-based content, developing international supply networks, international crowdsourcing, international payments and international collaboration. How to address local laws on privacy, intellectual property and business contracts.

DCL 6739 - Thèmes choisis en droit
Étude approfondie d’une problématique ou d’un sujet lié aux tendances émergentes en droit.
Thème: Droit international de l’environnement

DCL 5732 - Problèmes choisis de droit de la personne II
Thème: Droit de l’environnement

DCL6339 – Special Topics in Law
Topic: Competition Law
Topic: Law, Technology and the Future
In-depth examination of a question or topic linked to emerging trends or research areas in law.

GEG5109 - Place and Social Transformations
Interplay between social and spatial transformations and its implications for meanings and representations from global to local scales.

GEG5105 - Selected Topics in Human Geography
In-depth examination of a question or topic linked to new trends or research areas in human geography.

GEO5301 – Seminars in Earth Sciences
Topic: Advanced Oceanography
Covers a spectrum of Earth Sciences topics and research problems, ranging from the solid Earth to its surface environment and climate. A strong discussion component and has the primary aims of exposing students to current research problems and improving their communications skills (oral and written). This course is equivalent to ERTH 5001 at Carleton University.
Winter 2020

DCL6339 – Special Topics in Law
In-depth examination of a question or topic linked to emerging trends or research areas in law.

EDU 6106 - Science, Technology, Society and Environment or EDU 6506 - Sciences technologies, société et environnement
Virtual Internet Course - Critical examination of the social impact of science and technology and their educational implications. Study of the roles of ecological and scientific literacies.

GEO5301 – Seminars in Earth Sciences
Topic: Advanced Oceanography
Covers a spectrum of Earth Sciences topics and research problems, ranging from the solid Earth to its surface environment and climate. A strong discussion component and has the primary aims of exposing students to current research problems and improving their communications skills (oral and written). This course is equivalent to ERTH 5001 at Carleton University.