ENVR 615 (3 credits)
INTERDISCIPLINARY APPROACH ENVIRONMENT AND SUSTAINABILITY

General Information:
Fall 2019
Time and location: TBD

Instructors:
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Course overview
Through a series of modules on current environmental and sustainability issues, this course emphasizes the value and challenges of an interdisciplinary approach by examining how different fields can work together to address these issues.

Learning Outcomes
The world faces environmental challenges of unprecedented scale and scope in the 21st century and charting a course towards a sustainable future involves considering the interactions between complex ecosystems, social institutions, and human constructs and values. To be effective researchers and agents of change, graduates working on environmental and sustainability issues will need to transcend disciplinary boundaries, draw upon multiple conceptual frameworks and research methods, and innovatively integrate information from a range of disciplines. Students in this course will gain an understanding of the scientific, economic, social, ecological, technical, cultural, political, legal, and ethical perspectives that characterise key environmental and sustainability issues. They will learn to situate these perspectives in the conceptual or normative framework of their relevant disciplines, recognize the challenges of reconciling conflicting demands on the environment, and develop the capacity to integrate concepts and ideas from other disciplines. The course will introduce skills for interdisciplinary discourse and collaboration but ultimately build a transdisciplinary (no boundaries) problem-solving approach to support well-informed research and initiatives in support of the transition to sustainability.

Instructional Method
The course will consist of a series of lectures, readings, participatory exercises, role-play scenarios, class discussions and interactions with stakeholders.

Recommended Readings
Weekly readings will cover a range of disciplinary approaches to a common environmental or sustainability challenge. Readings will be drawn from academic journal articles, books, and popular media.
Course content
Students will first be introduced to useful terminology and concepts in environment and sustainability and to tools for bridging disciplines and conducting work in interdisciplinary groups. Subsequent sessions will focus on empirical case studies viewed through the lens of a particular discipline, or several disciplines, and will provide an opportunity to answer the following questions: 1) What is the underlying cause of the environment/sustainability challenge? 2) What types of actions or solutions do particular disciplinary lenses imply? 3) What are the underlying assumptions, normative dimensions or core concepts that particular disciplines bring to bear on the environmental and sustainability issues presented? 4) What are the approaches used to address the issue and how are they understood by other disciplines? 5) What insights could be provided by other perspectives, disciplines, stakeholders on this issue? 6) What are the barriers to and opportunities for interdisciplinary integration?

Themes for case studies: Climate change/Biodiversity loss/Water scarcity and quality/Pollution/Plastic waste/Air quality/Sustainable forestry/Sustainable fisheries/Energy consumption/Clean energy/Invasive species/Sustainable agriculture/Food security/Land use change/Biofuels/Soil erosion/degradation/Transportation/Sustainable cities/Sustainable landscapes/Sustainable institutions.

Evaluation

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<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Three case study reports, 20% each</td>
<td>60%</td>
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<tr>
<td>Role Playing Simulation</td>
<td>30%</td>
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<tr>
<td>Class participation</td>
<td>10%</td>
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McGill Policy Statements
Language of Submission:
“In accord with McGill University’s Charter of Students’ Rights, students in this course have the right to submit in English or in French any written work that is to be graded. This does not apply to courses in which acquiring proficiency in a language is one of the objectives.” (Approved by Senate on 21 January 2009 - see also the section in this document on Assignments and Evaluation.)

Academic Integrity:
“McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code
of Student Conduct and Disciplinary Procedures” (see www.mcgill.ca/students/srr/honest/ for more information). (Approved by Senate on 29 January 2003)
« L'université McGill attache une haute importance à l’honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l'étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le site www.mcgill.ca/students/srr/honest/). »