University of Toronto at Scarborough Department of Physical and Environmental Science RISK (Environmental)

- 2) With our partners within the Canadian Rivers Institute, INRS, the Department of Fisheries, and University of Quebec at Montreal, we have developed a protocol for assessing the vulnerability of Atlantic salmon populations under a changing climate, as based upon the most up to date climate and hydrological modeling.
- 3) With the World Wildlife Fund, we have developed an agent-oriented, environmental impact critique for watershed health. This framework was used to examine the Comparative Environmental Impact Assessment of the Mactaquac Dam in New Brunswick.
- 4) And finally, we have participated in one of the largest climate vulnerability assessments undertaken in Canada. The Metrolinx climate change resilience assessment is based upon Engineers Canada PIEVC vulnerability assessment tool, but has expanded beyond this framework to include system-wide considerations for transportation infrastructure.

At the core of all these methods are scientifically based modeling exercises as structured around a scenarios based, methodological framework. Drawing upon our experience, as well as an extensive review of the literature, we will introduce students to both the theoretical foundations of risk management, and its' actual application.

This course is intended to be a practical introduction to the concept of 'risk' as utilized in environmental decision-making. Students will be introduced to risk analysis and assessment procedures as applied in business, government, and civil society. Students will receive a broad array of inter-related, transferable, problem solving, assessment, and analytical skills:

Students will learn about the theoretical foundations of risk\vulnerability theory, analysis and management as based upon brief, accessible, and application-oriented introduction to probability theory.

As risk analysis is an extension of decision analysis, key elements of decision theory, utility theory, etc. will also be imparted to the students. The

There are numerous texts and study guides associated with risk analysis, risk assessments and risk management. While there is no required textbook for the course, you will also be responsible for key articles\reports associated with Risk literature; links will be provided for individual articles and reports by the instructors on Blackboard at the appropriate time.



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Verification of Student Illness or Injury forms can be found on the Office of the Registrar's webpage (<u>http://www.illnessverification.utoronto.ca/getattachment/index/Verification.of-Illnessor-</u> Injury-form-Jan-22-2013.pdf.aspx).

Feel free to contact me at any time to discuss the requirements of this course. If you are unhappy with the mark you received on an assignment\exam\project please come to speak to me with a written response to the comments provided for your assignment\exam\project.

The University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (<u>http://www.governingcouncil/utoronto.ca/policies/behaveac.htm</u>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.

Potential offences in papers and assignments include using someone else's ideas or words without appropriate a