

Lakehead University: Department of Geography and the Environment

Geography/Environmental Studies 4411: Water Sustainability and Water Resources Management

Seminars: Mondays and Wednesdays (19-01-07 to 19-04-03)
Time: 1:00-2:30pm
Room: RB 3026

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Course content

Session: Winter 2019

The objectives of this course are to explore the fundamental principles of water resources management and to introduce students to emerging water security problems and the application of sustainable approaches to water resource management in Canada. The student will gain an understanding of modern principles for water resource management, contemplate the role of science in making sound environmental decisions, and explore Integrated Water Resource Management strategies through a range of case studies that draw from readings, seminars, field trips, group exercises and student presentations. The course attempts to integrate resource science contexts with historic-, development-, management-, and policy-related contexts of water. Adaptive management and the ecosystem approach provide preliminary theoretical foundations for the understanding of socio-ecological dimensions of water resource use and water security.

Course Evaluation

4 Policy Briefings	40%
Independent Course Project	40%
• Research Statement (5 marks)	
• Research Proposal (5 marks)	
• Research Report (20%)	
• Research Presentation (10%)	
Final Exam (Exemption at 75%)	20%

Schedule of Seminars and Due Dates:

- January 7: Water Security and the Global Water Crisis
- January 14: Integrated Watershed Management - **Research Topics DUE!!**
- January 21: Watersheds as Planning Units (RN) - **Policy Briefing #1 DUE!!**
- January 28: Hydro Dams and other River Barriers (TH) - **Research Statement DUE!!**
- February 4: Floodplain Management (GS) - **Research Proposal DUE!!**
- February 11: Source Water Protection (SK) – **Policy Briefing #2 DUE!!**
- February 18: **READING WEEK – NO CLASS**
- February 25: Lake Eutrophication – **Policy Briefing #3 DUE!!**
- March 4: Stormwater Management (BM)
- March 11: Remedial Action Planning in the Great Lakes (SP,MW) – **Policy Briefing #4 DUE!!!**
- March 18: Water Assessment and Monitoring – **Research Reports DUE!!**
- March 25: Climate Change and Water Security
- April 1: Final Exam Review and **Research Presentations**