## University of Manitoba Department of Environment and Geography ENVR 4000 T01; Sustainable Water Management Winter 2016 (3 ch)

**UofM Instructor:** 

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Biological Sciences Project Coordinator:

Gordon Goldsborough (Gordon.goldsborough@umanitoba.ca)

Manitoba Water Council Project Coordinators:

Don Sexton (sextonda@mts.net)

International institute for Sustainable Development Project Coordinator:

Hank Venema (<a href="https://hvenema@iisd.ca">hvenema@iisd.ca</a>)

Manitoba Conservation & Water Stewardship Project Coordinator:

### A. Goals:

Sustainable Water Management is a 3 credit hour project course in the Department of Environment and Geography that will be offered over the winter term in 2016. The intent is to provide students with an understanding of real-world issues in the water resource management field, as identified in conjunction with representatives of government and other agencies in Manitoba. In particular, liaison with Ducks Unlimited Canada, the Manitoba Water Council, and Manitoba Conservation & Water Stewardship is anticipated. A secondary goal of the course is to build the skills and abilities of students to work as members of a team, a requirement that is becoming increasingly important in professional environmental careers.

# **B.** Objectives:

Upon completion of this course, students will be able to:

- 1. Understand the nature of sustainable water management issues and strategies in the Province of Manitoba; and
- 2. For a specific issue, prepare a written/electronic and oral submission as part of a research team that:
  - a. highlights the background and historical development of the issue,
  - b. identifies appropriate objectives and methods for investigation of the issue,
  - c. summarizes results and conclusions of the investigation, and
  - d. provides recommendations to provincial and other agencies for enhancing sustainable water management initiatives as related to the issue.

#### C. Course Content:

The course will consist of self-directed studies by teams of 3 or 4 University of Manitoba students on sustainable water management issues and strategies as identified for the Province of Manitoba as of

Winter 2016. In particular, each of the Agency Project Coordinators listed above will serve as key resource persons and will provide liaison for this area. The course will emphasize real-world, hands-on experience in dealing with the various stakeholders involved in the sustainable water management issue in question. This may involve meetings outside of regular University class times and at various locations across the Province. Students will be expected to determine the most effective strategies that might be applied to the issue under consideration after careful investigation of various alternatives, and also to explain why their approach is considered to be optimal. Research teams are expected to locate background literature, web-based resources, and other documentation for their specific project in conjunction with government and other representatives. Students will be evaluated through the research report and/or electronic materials, and an oral presentation.

Some possible research projects will be discussed at a first meeting of the class scheduled for Monday January 11, 2016 from 400-530 pm in 217 Wallace. A follow-up meeting to confirm team projects will be held on Monday January 18 at 230 pm in 217 Wallace. If students are unable to attend these meetings, please contact the course instructor as soon as possible. Students are also encouraged to develop a project of their own choosing in consultation with other students and the course instructor and/or coordinators.

### **D.** Evaluation

•	Progress Summary 1 (Feb. 8, 230 pm, 217 Wallace)	10%
•	Progress Summary 2 (Mar. 7, 230 pm – 217 Wallace)	15%
•	Final Team Project Submission (Apr.11)	50%
•	Individual Oral Presentations of Team Project (Apr. 11)	25%

Note that electronic submission of all team submissions and Powerpoints for the oral presentation should be done using the UofM Learn site (<a href="https://universityofmanitoba.desire2learn.com">https://universityofmanitoba.desire2learn.com</a>).

#### E. General

Requirements for this course and rules regarding plagiarism may be found in the General Academic Regulations and Policy Section of the University of Manitoba Graduate and Undergraduate Calendars.

Evaluative feedback will be provided upon request of the individual student before the voluntary withdrawal deadline date (March 18, 2016).

# F. Grading Scale

The grading scale to be used for this course is:

$\mathbf{A}$ +	90-100	<b>C</b> +	65-69
A	80-89	C	60-64
$\mathbf{B}$ +	<i>75-79</i>	D	50-59
В	70-74	${f F}$	0-49