

**Course Syllabus**  
**Geography 371 Water Resources Management: Spring 2015**  
Department of Geography, University of Victoria

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**Office hours:** Wednesday, 3:00-5:30 pm

**Calendar description**

A study of water resources management in different parts of the world, examining the influence of various physical, economic, social, political and technological factors. The alternative ways in which such problems as water scarcity, floods and declining water quality are handled will be discussed. A number of major water development schemes will be examined in detail. Students will be expected to undertake a modest research project and report upon it.

**Prerequisite:** Geog 209  
**Course location:** COR A229  
**Meeting times:** TWF 1:30-2:20  
**CourseSpaces:** [coursespaces.uvic.ca](http://coursespaces.uvic.ca)

**Course overview and rationale for GEOG 371**

This course provides an introduction to water resource management challenges and the many complex factors that contribute to them. Some topics that will be discussed are: water supply concerns given population growth and increasing demand, uncertainty in light of climate change, water quality issues stemming from point and nonpoint sources of pollution and from a lack of sanitation, and the geopolitics surrounding bulk water exports and sharing transboundary waters. Approaches for addressing water-related issues will be explored, including *conceptual frameworks* like Integrated Water Resource Management (IWRM) and the human right to water, and *management tools* like pricing and privatization.

Water plays an important role in everything we do, providing hydration and food, power, transportation, and sustaining the ecosystems that sustain us. Water has allowed us to move throughout our country historically serving as an important transportation route, provides a space for recreation, and has long had cultural and spiritual significance for indigenous and non-indigenous peoples alike. Understanding the issues that underpin decisions about how we share, use, benefit from, and protect water and watersheds is important for any student, but especially for those of you interested in any aspect of environmental or resource management. Traditionally, water resource management was based on the idea that humans could control water. Today, we know that droughts, floods, and hurricanes cannot be controlled and avoided, and that we need to learn to live with changing conditions

and to live *with* water. This course examines the many challenges we face in trying to do that.

In keeping with the Department of Geography's interdisciplinary approach, this course will span the physical and social sciences in the investigation of current water resource issues that are relevant locally, provincially, nationally, and internationally.

### **Instructor expectations/student responsibilities**

Given that each of you will have completed GEOG 209 or an equivalent, I expect that you will have a general understanding of resource management issues, including the conflicts and opportunities arising from resource use. I expect that you will attend class and be actively engaged in class discussions and activities. I recognize that students prefer to contribute to classes and learn in different ways, and I expect you to not only contribute meaningfully, but to conduct yourself in a way that encourages and respects that everyone else will also contribute in their own way. Both you (the student) and I (the instructor) have a responsibility to: come to class, be prepared to discuss the subject matter, and create a positive, constructive learning environment for yourself and others. This includes turning cell phones off (ringers, SMS and email functions can all be distracting) and not using the internet for activities unrelated to the class. In addition to in-class time, you should expect to commit an average of 4-6 hours per week for readings and assignments.

### **Communication**

CouseSpaces will be used for all course communication, including announcements, course materials, readings, and details about assignments. Therefore, please monitor CourseSpaces throughout the semester. If you have any questions or concerns with the course or your assignments, please do not hesitate to meet me during office hours or by appointment, or contact me via CourseSpaces email. Emails from other accounts (yahoo, gmail, hotmail) risk being treated as spam. I will attempt to respond to emails in a timely fashion, although depending on my schedule delays may occur. Therefore, be prepared to wait up to 48 hours for a response during the week. Email will only be checked sporadically on weekends and you should expect that emails sent over the weekend might not be answered until Monday at the earliest.

### **Learning Goals, Objectives, and Outcomes**

#### **Goal**

To provide students with the materials, resources, and activities that will allow you to describe and analyze pressing issues in water resource management and explain historical and future strategies to address these challenges.

## Objectives

- Identify, examine, and analyze key water management issues
- Identify, compare, and interpret water management frameworks
- Evaluate tools that can be used in water resource management decision-making and dismantle different stakeholder perspectives

## Outcomes

By the end of this course, you should be able to:

- Explain different physical and social factors underpinning water issues and demonstrate relationships among these issues
- Summarize and compare the range of approaches and tools proposed to address critical issues in water by various local, provincial, national, and international actors
- Describe and distinguish between different stakeholder perspectives on major water issues
- Use academic literature, lecture notes, and materials from class discussions and activities to assess a critical water issue of your choice
- Demonstrate advancement in depth of knowledge and ability to analyze water issues
- Show improvement in writing skills through briefing materials and essays, which includes using templates, developing thesis statements, and using appropriate citation formats and demonstrate progress in presentation skills and the ability to debate complex issues

## Assessments

Learning outcomes will be assessed based on:

<b>In-class contributions:</b>	15%
<b>Briefing note:</b>	15%
<b>Case study competition:</b>	15%
<b>Mid-terms 1 &amp; 2:</b>	20% (Option A) or 25% (Option B)*
<b>Major paper:</b>	30% (Option B) or 35% (Option A)*

\* This class offers an option of assignment evaluation weighting, allowing you to choose — based on your learning preferences — how you prefer to meet the course requirements. You are encouraged to carefully consider how you would like to divide the proportions for the graded assignments. All students must complete all assignments, but those who are more comfortable expressing ideas in examination (short-answer) format, or who are still developing their formal writing skills, may prefer to weight their mid-term evaluations more heavily than their major paper. Students who have difficulty with exam preparation or exam writing may prefer to choose the opposite weighting. All students must submit their grading option (A or B) by January 13th via CourseSpaces. No subsequent changes will be permitted after this date.

## **Assessment details**

### **In-class contributions (15%)**

Discussion and debate plays a significant role in personal, professional, and academic life, providing an opportunity to challenge ideas and to be challenged in your own thinking - a critical part of any learning process. I expect that you will have completed the readings before class begins and to be prepared to engage in discussions, debates, and class exercises related to the weekly subject matter.

Half (7.5%) of your in-class contributions evaluation will be based on 5 structured activities that will take place during class. Your best 4 out of 5 will count toward your final course evaluation.

Half (7.5%) of your in-class contributions evaluation will be based on your participation in general discussions and Q&A periods during class. Note that these contributions are not marks for attendance but for contributing substantively and meaningfully (and creatively!) to the class discussions. Marks for in-class contributions will consider quality, regularity, and willingness of your participation.

An alternative to “speaking on your feet” is available for a limited number of students who prefer a more structured means of contributing in the classroom setting. Given the large number of students in the class there is inadequate time for each student to choose this option. One student (per reading) will provide a summary and reaction to the assigned reading at the beginning of discussion classes (5 minutes). These are intended to be informal and do not require any presentation materials (e.g. no need for PowerPoint). However, summaries should be well thought-out and concise. You will be evaluated based on your ability to summarize the article, identify the major argument(s) and provide personal insight as to the strengths and weaknesses of the article. Signup will be on a first-come first-served basis via course spaces e-mail, seven spots are available, and this will contribute to up to 5% of the in-class contributions evaluation.

\*Additional options are available for students who have difficulty meeting the in-class contributions assessment criteria as described here (for example, for medical reasons). Please do not hesitate to contact me by January 13 at the latest if you would like to discuss these options.

### **Briefing note (15%):**

The purpose is to produce a well-organized, concise and compelling briefing note for water managers, conveying important facts, questions, arguments and a recommended course of action about a specific issue. The issue is your choice and will serve as the basis for your final paper. Assume the audience for the report is senior decision makers who could help resolve the issue. There are no geographical limits to the issues (i.e. it does not have to be an issue in BC or in Canada). A combination of bullet points and paragraphs may be used, but paragraphs should make up at least 75% of the text. A minimum of 7 academic references should be

used and referenced using APA or Chicago style (author-date). The total length is: 1000-1200 words (not including references) and the document should be single spaced, double sided. A detailed template and the evaluation rubric are provided on CourseSpaces.

**DUE DATE: January 27, 2015. Must be submitted via CourseSpaces email by the beginning of class.**

### **Case study competition (15%)**

Teams of five to six members will be presented (in class) with a case study of a “local” water issue relevant to the course. Four teams will compete to “solve” one of three case study problems. The goal of the exercise is to develop a sound strategy for the organization involved in the case to move forward. Detailed instructions of how to develop this strategy will be provided in class and on CourseSpaces. Sign-up options will be available via CourseSpaces following presentation of the assignment in class (January 21). The final components of the case study assignment will include:

#### *Presentation, 5% -*

Delivered to the judge(s) on the day of the competition. 7 minutes MAX.

#### *Summary document, 10% -*

This is a 5-6 page written outline of the case study analysis and proposed strategy summarizing all key points based on the steps outlined in the detailed instructions. The summary should give the judge(s) a thorough view of the complete approach/solution proposed by the team. Teams without a summary document or with a summary longer than six pages will be disqualified. Summaries must be handed in at the beginning of class on the day of the competition. Text should be single-spaced. The proposed budget, references, and appendices are not counted as part of the “5-6 page count”. All figures and tables must be labeled, and pages should be double-sided.

#### *Proposed budget -*

As outlined in the instructions, a budget of proposed costs must be prepared. The table or summary of proposed costs does not “count” as one of the 5-6 pages for your summary, and can be provided as an appendix (but be sure to refer to the appendix within the text, so readers know that the budget is a part of the package).

#### *References -*

Must include a minimum of 10 academic sources. Additional governmental, industry and media sources may be used but will not count as part of your 10 academic sources. Also not considered in the 5-6 page “count”.

#### *Exhibits/appendices -*

You may also submit the following in an attached appendix or exhibit, where relevant: samples of additional materials such as a schedule for an

outreach/consultation strategy, photographs, or social media materials, etc.

**DUE DATE: Due on the date assigned to your group (TBD). A hard copy must be submitted before the beginning of class.**

**Mid-term exams (10% each, 20% total):**

Two mid-term exams are scheduled for February 6 and March 20, 2015. Each mid-term will consist of five short-answer questions, worth 2% each. Example questions will be posted on CourseSpaces following an in-class review of the mid-term format and scope on January 16, 2015.

**Major paper (30 or 35%):**

The major paper is a detailed expansion of your briefing note (topic changes are permitted, but must be discussed with the instructor). The goal of this assignment is to produce a detailed analysis of a complex water resource management challenge and to articulate and support a coherent argument. You will be expected to incorporate theoretical and analytical tools and frameworks from class readings, lectures and discussions as relevant to your particular issue. The paper should include an elaboration of trends, implications and the status of research relevant to your issue. A minimum of 12 academic references is expected. Non-academic sources, such as media articles, can be used in addition to the 12 academic references and must also be referenced according to the APA or Chicago (author-date) style. The audience for the research paper is mixed – both academics and policy practitioners. The total length is 3500-4000 words (not including references or appendices). The document should be 1.5 or double spaced, double sided, with no cover page. Section subheadings may be used to add clarity to the paper. *Be sure to incorporate recommendations and feedback from your original briefing note.*

**DUE DATE: APRIL 2, 2015. A hard copy must be handed in by the beginning of class.**

**Late Policy**

Written assignments that are handed in late will be deducted 10% per day. In-class contributions and presentations that are not prepared on time will be given zero and substitutions to later dates are not optional.

**UVic policies and procedures**

**Academic integrity**

Please review <http://web.uvic.ca/calendar2011/FACS/UnIn/UARe/PoAcl.html> for university policy on academic integrity and useful information on avoiding plagiarism. Any form of academic dishonesty will result in an automatic “F” for that assignment or test and possibly the course for ALL individuals involved.

**Accessibility**

Students with diverse learning styles and needs are welcome and will be

accommodated in this course. In particular, if you have a disability/health consideration that may require accommodation, please feel free to approach me and/or the Resource Centre for Students with a Disability (RCSD) as soon as possible. The RCSD staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations: <http://rcsd.uvic.ca/http://rcsd.uvic.ca/>. The sooner you let us know your needs, the quicker we can assist you in achieving your learning goals in this course. That said; please do not hesitate to contact me at any time throughout the course if you require accommodation. Please note that if you require the assistance of any type of recording device, you must seek permission from the instructor.

### **Positivity and safety**

The University of Victoria is committed to promoting, providing and protecting a positive and safe learning and working environment for all its members.

### **Course Experience Survey (CES)**

I value your feedback on this course. Towards the end of term, as in all other courses at UVic, you will have the opportunity to complete an anonymous survey regarding your learning experience (CES). The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future. The survey is accessed via MyPage and can be done on your laptop, tablet, or mobile device. I will remind you and provide you with more detailed information nearer the time but please be thinking about this important activity during the course.

### **Grade scale**

A+	A	A-	B+	B	B-	C+	C	D	F
90-100%	85-89%	80-84%	77-79%	73-76%	70-72%	65-69%	60-64%	50-59%	0-49%

## Tentative schedule

\* Note: This schedule is subject to change in order to include current and relevant events as they unfold.

<b>THEME</b>	<b>DATE</b>	<b>READINGS AND ASSESSMENTS</b>
Course review and introduction	Jan 6	
Water management and water governance basics (in B.C.)	Jan 8-16	Explore the Living Water Smart blog and B.C. Water Sustainability Act blog
	Jan 13	<b>*Grading option signup deadline*</b>
Dams and development	Jan 20-23	Richter <i>et al.</i> 2010
Drinking water	Jan 27-30	Prudham (2000) <b>Briefing note DUE JAN 27</b>
Water quality and monitoring	Feb 3-6	Ongley (2000) <b>Mid-term 1 FEB 6</b>
<b>Reading break</b>	Feb 9-13	-
Extreme events	Feb 17-20	In-class readings
Conservation and planning	Feb 24-27	Webler & Tuler (2001)
Water security and international development	Mar 3-6	Wolf (2005); Jønch-Clausen and Fugl (2001)
Case study competition	Mar 10-13	<b>Case study presentations and reports DUE</b>
Current events	Mar 17-20	<b>Mid-term 2 MAR 20</b>
Water pricing and privatization	Mar 24-27	Budds & McGranahan (2003)
Course wrap-up	Mar 31- Apr 1	<b>Major paper DUE APR 2</b>