

JSGS 870-001 Water Policy

	UNIVERSITY OF REGINA CAMPUS	UNIVERSITY OF SASKATCHEWAN CAMPUS
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OFFICE LOCATION:	2 Research Drive	Diefenbaker Place
TERM:	Fall 2018	Fall 2018
ROOM:	210-#2 Research Drive	Canada Room
DATE AND TIME:	Monday morning – 8:45 a.m. to 12:00 p.m. September 11, 2016 to December 4, 2017	Monday morning – 8:45 a.m. to 12:00 p.m. September 11, 2016 to December 4, 2017

CALENDAR DESCRIPTION

This course outlines the current state of water policy and governance in Saskatchewan, Canada, and globally. The course explores the challenge of how to manage complex water systems in an era of deep uncertainty and climate change. Solutions lie in risk-based management frameworks, decision making under uncertainty, scenario planning, and science-policy engagement. The existential threat to global water systems is set within the context of rapid population and economic growth, unsustainable water use, climate change, and ineffective management and policy. The output of this course will be students better able to tackle the wicked, complex problem of water management and governance.

The class format includes lectures and group discussions in which students read separate material and then teach content to peers, guest lectures, documentaries and web-based content. Students will develop a collaborative, interdisciplinary framework for evaluating sustainable water governance and then use this framework for climate adaptation assessment.

LEARNING OBJECTIVES

This course will provide students with an understanding of water policy and governance, and what this might mean for future leaders in the public sector, private sector, and civil society. Following successful completion of this course, students should be able to:

- Comprehend water law, policy and governance issues including the human right to water, water rights, indigenous water rights
- Understand dimensions of global and local water shortages and floods
- Identify hidden vulnerabilities in water systems – virtual water and climate change
- Develop water policy, strategy and stakeholder engagement in the water sector for credibility, legitimacy and salience
- Develop principles for sustainable water governance

ATTRIBUTES OF JSGS GRADUATES

1. Management, Governance, and Leadership: Ability to inspire support for a vision or course of action and successfully direct the teams, processes, and changes required to accomplish it.
2. Communication and Social Skills: Ability to communicate effectively and build enduring, trust-based interpersonal, professional relationships.
3. Systems Thinking and Creative Analysis: Ability to identify key issues and problems, analyze them systematically, and reach sound, innovative conclusions.
4. Public Policy and Community Engagement: Ability to understand how organizational and public policies are formulated, their impact on public policy and management and how to influence their development.
5. Continuous Evaluation and Improvement: Commitment to on-going evaluation for continuous organizational and personal improvement.
6. Policy Knowledge: Ability to analyze and contribute content to at least one applied policy field.

COURSE CONTENT AND APPROACH

This is a draft Syllabus that will be finalized the first day of class. This course will be conducted as a combination of a lecture and seminar class. Your participation is essential. All reading materials set out in the schedule below are assigned readings and will be covered in the order in which they appear.

The objective of this course is to provide students with a framework through which to understand modern-day water governance systems and arrangements, and to evaluate the effectiveness of these arrangements with attention paid to how they may help or hinder the achievement of desirable public policy outcomes. The course surveys a variety of water policy and governance literature and governance arrangements with attention to those that yield desirable public policy outcomes. Attention is paid to applying conceptual frameworks to real-life cases of water successes and failures.

COURSE OUTLINE AND ASSIGNMENTS

Session 1 – Introduction to water governance and complex problems - September 17, 2018

Water governance sets the context for water policy. Governance is a term describing how organizations and groups or organizations, and people are organized and controlled. It has become part of the lexicon in policy, organization and business circles. How is the water governance system conceptualized? What are the dominant institutions and organizations? What are some of the key trends and issues?

REQUIRED READINGS:

Reading 1: Hurlbert, M. 2016. Water Governance in the Prairie Provinces. Chapter 10 in Diaz, H., Hurlbert, M., Warren, J. *Vulnerability and Adaptation to Drought, The Canadian Prairies and South America*. University of Calgary Press, Calgary.

Reading 2: Head, B. 2010. *Wicked Problems in Water Governance: Paradigm Changes to Promote Water Sustainability and Address Planning Uncertainty*. Urban Water Security Research Alliance Technical Report No. 38.

Flint, Michigan Case Study

Session 2 – Climate Change and Water – Drought - September 24, 2018

One of the most significant drivers impacting water today is climate change. How is the climate changing and what do we expect in the future? What will water supply potentially look like in Saskatchewan, Canada and the world and how does it impact agriculture and communities? What does this mean for water governance?

Cape Town South Africa Case Study

REQUIRED READINGS

Reading 1: Wheaton E, Sauchyn D, Bonsal B(2016. Future Possible Droughts, ch 3 in Diaz, H. Warren, J. and Hurlbert, M. *Vulnerability and Adaptation to Drought in the Canadian Prairies*, University of Calgary Press, Calgary.

Reading 2: Wandel et al. 2016. Drought and Vulnerability: A conceptual Approach, in Diaz, H., Hurlbert, M., Warren, J. (Eds) *Vulnerability and Adaptation to Drought: The Canadian Prairies and South America*, University of Calgary Press, Calgary, Alberta. (351-361).

Reading 3: Feidman, D.L. Ingram H.M. 2009. Making science useful to decision makers: Climate forecasts, water management, and knowledge networks. *Weather, Climate and Society*.

Session 3 –Adaptive governance, adaptive management, and anticipatory governance - October 1

What theories and frameworks inform good policy design? What approaches should we take in developing strategy in order to respond to the challenges of water governance including drought and flood?

REQUIRED READINGS

Reading 1: Hurlbert, 2018. *Adaptive Governance*, Chapter 2, *Adaptive Governance of Drought and Flood*, Springer: Verlag.

Reading 2: Quay, R. 2010. Anticipatory governance: A tool for climate change adaptation. *Journal of the American Planning Association*. 76(4): 496-511.

Thanksgiving October 8, 2018

Session 4 – Groundwater – October 15, 2018

Groundwater is unseen and often not considered in water management and policy decisions. In some jurisdictions it is not regulated and in many the regulations are not integrated with surface water policy. What are groundwater issues and what are best policy practices for its management and regulation?

REQUIRED READINGS

Reading 1: Jakeman, A.J., et al. 2016. *Integrated Groundwater Management: An Overview of Concepts and Challenges*. Chapter 1 in *Integrated Groundwater Management*. Springer, Verlag. (Available at: https://link.springer.com/chapter/10.1007/978-3-319-23576-9_1)

Reading 2: Nowlan, L. 2005. *Buried Treasure. Groundwater Permitting and Pricing in Canada. With Case Studies by Geological Survey of Canada, West Coast Environmental Law, and Sierra Legal Defence Fund*. Available at: https://qspace.library.queensu.ca/bitstream/handle/1974/8509/Buried%20Treasure_Groundwater%20Permitting%20and%20Pricing%20In%20Canada.pdf?sequence=1

See: <https://www.canada.ca/en/environment-climate-change/services/water-overview/sources/groundwater.html>

Session 5 – Flood policy and drainage - October 22, 2018

REQUIRED READINGS

Reading 1 : Hurlbert, M. The Challenge of Integrated Flood Risk Governance: Case Studies in Alberta and Saskatchewan, Canada Submitted with revisions to Integrated Flood Management Journal

Reading 2: Oulahen, G. 2015. Flood Insurance in Canada: Implications for Flood Management and Residential Vulnerability to Flood Hazards. *Environmental Management* 55: 603-615.

Reading 3: Morrison et al. 2018. Flood risk management in the Canadian prairie provinces: Defaulting towards flood resistance and recovery versus resilience. *Canadian Water Resources Journal* 43(1): 33-46.

See: <https://priceconomics.com/the-places-in-america-most-likely-to-flood-from/>

Session 6 – Saskatchewan Water Governance in context - October 29, 2018

Saskatchewan Water has been governed since before the turn of the last century. What is the history of Saskatchewan's institutions? What are the current relevant institutions? How could and should improvements be made? How does the federal government enter into the picture?

REQUIRED READINGS

Reading 1 - Hurlbert, M. 2009. Comparative Water Governance in the Four Western Provinces. *Prairie Forum*, a special edition on climate change. 34 (1): 45-77.

Reading 2: Saskatchewan Water Security Agency. 2012. 25 year Water Security Plan Consultation Document. Available at <https://www.wsask.ca/About-WSA/25-Year-Water-Security-Plan/>.

Reading 3: Morgan et al. 2014. Water Governance in the Saskatchewan River Basin: A Preliminary Study. *Journal of Rural and Community Development* 9(4): 34-48.

Optional: De Loe, R. (2008) Invited Commentary: Canada Needs National Water Strategy. *Canadian Water Resources Journal* 33(4): 309-405

Session 7: Water law and legislation – November 5

Water law is foundational to water policy. What are water laws? How do laws relate to policy?

REQUIRED READINGS

Reading 1: Hurlbert, M. 2006. Water Law in the SSRB. Available at: <http://www.parc.ca/mcri/pdfs/papers/iacc027.pdf>

The Water Security Agency Act, S.S. 2013, W. – 8.1

Reading 2: Bakker, K. 2007. The 'Commons' versus the 'commodity': Alter-globalization, anti-privatization and the human right to water in the global south. *Antipode* 39(3) 430-449.

Remembrance Day Holiday - November 12, 2018**Session 8: indigenous water rights, and duty to consult - November 19, 2018**

What is the duty to consult and how does it relate to water?

REQUIRED READINGS

Reading 1: Phare, MA 2009. Aboriginal Water Rights Primer. Phare Law, Winnipeg, Manitoba.

Available at: www.onwa.ca/upload/document/aboriginal-water-rights-primer-canada.pdf

Reading 2: White et al. 2012. Water and Indigenous Peoples: Canada's Paradox. The International Indigenous Policy Journal. 3(3):

Session 9 –Transboundary and International Water - November 26, 2018

When water crosses international boundaries state policies and international law and relationships are involved. What could the issues be? How are conflicts resolved?

REQUIRED READINGS

Reading 1: PPWB Master Agreement on Apportionment Available at:

<http://www.ppwbc.ca/information/109/index.html>

Reading 2: de Castro P.C. 2015. Trends of Development of International Water Law. Beijing Law Review 6: 285-295.

Reading 3: Schindler, D.W., Hurley, A. 2004. Potential Problems with Cross-Border Water Issues: The U.S. and Canada in the 21st Century. Canada and the New American Empire. CBC News World, Center for Global Safety. University of Victoria.

Session 10 – the Economics of Water - December 3, 2018

What is the value of water? How does economics inform policy? Privatization of water is a political issue. What form does privatization take and what are the policy implications?

REQUIRED READINGS

Reading 1: Brandes, O., Nawlan, L., Paris, K. 2009. Going With the Flow? Evolving Water Allocations and the Potential and Limits of Water Markets in Canada. Report February 2009. Available at: poliswaterproject.org/sites/default/files/09_going_w_flow_1.pdf

Reading 2: Hurlbert, M., Diaz, H. 2013. "Water Governance in Chile and Canada – A comparison of adaptive characteristics" special feature on the Governance of Adaptation of *Ecology and Society*. 18(4), pp. 61-76.

DESCRIPTION OF ASSIGNMENTS:

See Below on Evaluation

EVALUATION

Participation: 15%

All students are expected to participate in seminar discussions, share their ideas, and engage in conversations with the goal of clarifying or advancing the course content. This includes adding content, observations, questions and resources to UR Courses discussion group for the class. SEE the JSGS participation guidelines.

Policy Brief and Presentation: 20% October 15, 2018

You will pick a contemporary water policy topic and critically assess the current policy surrounding the issue. Each policy brief should be a maximum of five page (double spaced times new roman 12 font); you will be expected to lead a brief discussion of the policy issue, your analysis, and your recommendations in class. JSGS has examples of policy briefs.

Quizzes: 15% Periodic quizzes will be completed online at the end of each session throughout the block that test concepts from the reading and discussion in class.

Group Project: 15% November 5, 2018

Students will form groups of 4 to 5 students to solve a water governance issue. Students will be given a case study and be required to clearly articulate the issue(s), develop a governance strategy, and outline the governance strategy in a class presentation.

Final Individual Project: 35% The major focus of your work during this project will be to investigate, develop and present an assessment, analysis, response and plan that addresses a real-world water issue or challenge. The format can be a model, visualization, poster, paper, website, video documentary, a new organization, event, public meeting, cabinet submission, game, etc. Marks will be allocated based on how well you are able to identify the key issues, your ability to link these issues with the theory and material discussed in class, and how you defend your analysis and recommendations.

This project will be completed using a daily exercise throughout the block starting with a **250 word abstract due on November 19**. Before subsequent session on November 19, you will post an elaboration of your final product, building it in stages based on the course content and as you develop the idea. The final project will be due a week after the day of the last class which will be **on December 11**.

The project should focus on (but is not limited to) the following questions:

- Describe the water issue. What are the issues and problems?
 - What are the symptoms and the underlying issues?
 - Why/how did the problem arise?
 - Who is affected by the problem?
 - What is your analysis and evaluation of the situation?

- What are you proposing be done about it?
 - Detailed description of your solution (remember – based on course content, if applicable).

JSGS GRADE DESCRIPTORS

85+ excellent: A superior performance with consistent strong evidence of

- a comprehensive, incisive grasp of the subject matter;
- an ability to make insightful critical evaluation of the material given;
- an exceptional capacity for original, creative and/or logical thinking;
- an excellent ability to organize, to analyze, to synthesize, to integrate ideas, and to express thoughts fluently;
- an excellent ability to apply theories to real-world problems and intersect with related disciplines.

80-85 Very Good: An excellent performance with strong evidence of

- a comprehensive grasp of the subject matter;
- an ability to make sound critical evaluation of the material given;
- a very good capacity for original, creative and/or logical thinking;
- an excellent ability to organize, to analyze, to synthesize, to integrate ideas, and to express thoughts fluently;
- a strong ability to apply theories to real-world problems and intersect with related disciplines.

75-80 Good: A good performance with evidence of

- a substantial knowledge of the subject matter;
- a good understanding of the relevant issues and a good familiarity with the relevant literature and techniques;
- some capacity for original, creative and/or logical thinking;
- a good ability to organize, to analyze and to examine the subject material in a critical and constructive manner.
- Some ability to apply theories to real-world problems and intersect with related disciplines.

70-75 Satisfactory: A generally satisfactory and intellectually adequate performance with evidence of

- an acceptable basic grasp of the subject material;
- a fair understanding of the relevant issues;
- a general familiarity with the relevant literature and techniques;
- an ability to develop solutions to moderately difficult problems related to the subject material;
- a moderate ability to examine the material in a critical and analytical manner.

0-49 Unacceptable Performance

N.B.: The average of a JSGS course should normally fall in the range of 78-80 but it may vary with circumstances.

LATE ASSIGNMENTS

Late assignments will not be accepted.

STUDENTS WITH SPECIAL NEEDS

University of Regina (U of R): Students in this course who, because of a disability, may have a need for accommodations are encouraged to discuss this need with the instructor and to contact the Coordinator of Special Needs Services at (306) 585-4631.

U OF S: Students in this course who, because of a disability, may have a need for accommodations are encouraged to discuss this need with the instructor and to contact Disability Services for Students (DSS) at 966-7273.

Students Experiencing Stress

University of Regina (U of R): Students in this course who are experiencing stress can seek assistance from the University of Regina Counselling Services. For more information, please see the attached document, visit this website: <http://www.uregina.ca/student/counselling/contact.html>, or call (306) 585-4491 between 8:30 a.m. to 4:30 p.m. Saskatchewan time Monday to Friday.

ACADEMIC INTEGRITY AND CONDUCT

U of R: Ensuring that you understand and follow the principles of academic integrity and conduct as laid out by the University of Regina (available at <http://www.uregina.ca/gradstudies/grad-calendar/policy-univ.html>) is vital to your success in graduate school. Ensuring that your work is your own and reflects both your own ideas and those of others incorporated in your work is important: ensuring that you acknowledge the ideas, words, and phrases of others that you use is a vital part of the scholarly endeavour. If you have any questions at all about academic integrity in general or about specific issues, contact your course instructor to discuss your questions.

U OF S: Understanding and following the principles of academic integrity and conduct as laid out in the University of Saskatchewan's Guidelines for Academic Conduct is vital to your success in graduate school (available at www.usask.ca/university_secretary/council/reports_forms/reports/guide_conduct.php). Ensuring that your work is your own and reflects both your own ideas and those of others incorporated in your work is important: ensuring that you acknowledge the ideas, words, and phrases of others that you use is a vital part of the scholarly endeavour. If you have any questions at all about academic integrity in general or about specific issues, contact any faculty member and we can discuss your questions.