GEOG 356: Resources Management
Course Outline Fall 2016

Course instructor: Simone Philpot.
Lectures: Tuesday 10 - 11:30; Thursday 10 - 11:30 Location: AL 105
Office Hours: TBD
>   If you need to schedule an appointment outside of these drop-in hours please
>   contact me via email.
E-mail: sphilpot@uwaterloo.ca

Teaching Assistant: TBA
TA Office Hours: TBD

*This course will use the course website (LEARN) extensively. Please refer to it regularly for updates.

Course Description.

This course addresses key themes in Environmental and Natural Resources Management (ENRM). The focus is on gaining familiarity with the theoretical concepts and practical competencies needed to critically analyze and engage in resources management discourse and practice. Case studies and group work will be used to encourage deep thought and the useful synthesis of theoretical and practical perspectives.

Overview

This course will introduce the student to the terminology, theories, methods, problems, and emerging trends in contemporary environmental and natural resources management. We will examine the economic, behavioural, institutional, and environmental decision-making that underlies environmental and natural resources management in regards to both theory and practice. Students will gain an appreciation of the challenges facing actors in this area of resources management and will be introduced to many of the skills and emerging theories that exist to respond to those challenges. Students will be encouraged to critically analyze past and current approaches to environmental resources management. Through this course, students will also be encouraged to identify the core competencies that will support their own professional growth in the field of environmental and natural resources management.

Intended Learning Outcomes

Upon completion of this course, you should be able to:

- Identify, analyze and critically explain a variety of conceptual and methodological frameworks that are important to understanding environmental and natural resource management.
- Identify, analyze and critically explain emerging challenges and responses in environmental and natural resources management.

- Make meaningful connections between ENRM theory and case specific knowledge of environmental resources management.
- To identify core competencies needed for a career related to ENRM, and apply this knowledge to develop a plan to achieve those competencies.

Required course text & i-clicker

There is no required text book. Readings will be available through the University website and online sources. If you have any difficulty finding a source, please let the instructor know immediately for support.

An **i-clicker** will be required by the second class and can be purchased at the UW bookstore.

Course Evaluation

Progress will be encouraged and evaluated through both individual and group activities The following methods will be used.

Reading responses - 10%
In class: I-clicker quizzes - 5%
In class: Workshop activities - 10%
Assignment 1: Individual Assignment - 15%
Group paper outline and group contract - 5%
Assignment 2: Group paper - 20%
Mid-term test - 10%
Final examination- 20%
Participation - 5%

Assignments will be submitted and feedback returned via LEARN. The group paper will be submitted using Turnitin software. Details will be provided in lecture and on LEARN.
Waterloo Learn is a web-based course management system that enables instructors to manage course materials (posting of lecture notes etc.), interact with their students (drop boxes for student submissions, on-line quizzes, discussion boards, course e-mail etc.), and provide feedback (grades, assignment comments etc.). Users can login to Learn via: http://learn.uwaterloo.ca/. Use your WatIAM/Quest username and password. If you still cannot get on after checking your password, please confirm with your instructor that you are on the class roster.

Reading Responses

Reading responses will be used to connect readings with course themes. On specified weeks, you will be provided with a prompt related to the weekly readings, and will be required to write a response to that prompt. Your response should answer the prompt in full and should not exceed 250 words. Reading responses are due by 3pm Wednesday on identified weeks. Please refer to the course schedule for the reading responses schedule. Visit LEARN to see the evaluation criteria for these responses.

I-clicker quizzes
I-clicker quizzes will be incorporated into lectures to assess understanding of important course concepts from the lecture. Please note that guest lectures may not include quizzes. Your five highest quiz scores will count towards your grade.

Workshop activities
In-class activities will be used to reinforce key concepts related to environmental and natural resources management. These workshops will consist of various group activities, each concluding with the submission of a group response in-class. All students within a group will submit one response and will receive the same grade, unless otherwise specified. Please refer to LEARN for the grading scheme. Students must be present for the duration of the workshop activity to receive credit for the assignment.

Assignment 1: Individual Assignment
Developing a core competency action plan - details to be posted on LEARN.

Assignment 2: Group research paper
In order to develop topical expertise as well as research and analysis skills, you are asked to prepare a group project consisting of two parts.
(i) A 1 - 2 page research proposal identifying and describing a natural resources management topic that will be pursued, identifying group members (2-3 individuals), providing a sample of references, and a group work contract. More details will be available on LEARN.
(ii) Group research paper - details to be posted on LEARN. This assignment will be submitted using the Turnitin software.

Mid-term and Final exams
This course involves both a mid-term test and a final examination. The test will include all material presented to that date, and the final examination will be cumulative, including all material up until the course review. The mid-term test will take place during lecture time while the final examination will be scheduled during the exam period. They will both consist of a combination of short-answer and essay questions.

Participation
Participation can take many forms. Attendance, contributions during large group discussions, and contributions during small group workshops. The TA and instructor will evaluate participation throughout the course, keeping in mind all of these forms of participation

Useful references for this course, and for anyone pursuing a career in professional resources management:
1.   Armitage, D.A. and R. Plummer (2010) *Adaptive Capacity and Environmental Governance*, Springer, London.
2.   Hanna, K.S. and S. Slocombe (2007) *Integrated Resource and Environmental Management,* Oxford University Press, Toronto.

3.   Mithchell, B. (2002) *Resource and Environmental Management*, second edition, Pearson Education Limited, Toronto.

Recommended resources for writing skills

In this course, and other undergraduate courses, a high level of writing competency is expected. The University of Waterloo offers many useful resources for writing and research, I encourage all students to explore these options. I particularly recommend that you visit the University of Waterloo Writing Center website to familiarize yourself with these services: https://uwaterloo.ca/writing-centre/

Course Schedule, Content and Readings.

Lecture schedule & readings	Assessment (iclicker quizzes not listed)
Week 1 (Sept. 8) Course Introduction. Defining environmental and natural resources management. Optional "reading" : Johan Rockstrom: "Let the environment guide our development" https://youtu.be/RgqtrlixYR4	
Week 2 (Sept. 13 & 15). Overview of ENRM and core concepts. **Sept. 13 reading**: Bryant, R. Wilson G. (1998). Rethinking environmental management. *Progress in Human Geography. 22(3): 321-343.* **Sept. 15 reading:** Hardin, G. The Tragedy of the Commons. (1968). *Science.* 162: 1243-1248. Dietz, T., Ostrom, E., and Stern, P. (2003). The Struggle to Govern the Commons. *Science.* 302(12): 1907-1912	***Reading response due** **Workshop 1.**
Week 3 (Sept. 20 & 22). Exploring Key concepts: Complexity, Uncertainty, Resiliency, Sustainability. **Sept. 20 reading:** Mitchell, B. Change, Complexity, Uncertainty and conflict. In *Resource and Environmental Management.*(2001). Second Edition. Chapter 1. Harlow, England: Routledge: 1-25. Available as an e-book chapter from the University of Waterloo library. **Sept. 22 reading:** Holling, C.S. and Meffe, G.K. (1996). Command and Control and the Pathology of Natural Resource Management. *Conservation Biology*. 10(2): 328-337. Biggs et al. (2012). Toward Principles for Enhancing the Resilience of Ecosystem Services. *Annual Review of Environmental Resources*. 37:421-448.	**Workshop 2**
Week 4 (Sept. 27 & 29). Knowledge Systems. **Sept. 27 reading:**	***Reading Response due.**

Van Tol Smit, E., de Loe, R., and Plummer, R. (2014). How knowledge is used in collaborative environmental governance: water classification in New Brunswick, Canada. *Environmental Planning and Management.* 8(3): 423-444. **Sept. 29 reading:** Berkees, F., Colding, J., and Folke, C. (2000). Rediscovery of Traditional Ecological Knowledge as Adaptive Management. *Ecological Applications*. 10(5):1251-1262.	
Week 5 (Oct. 4 & 6). (1) Public Participation. (2) ENRM competencies **Oct. 4 reading:** Reed, M. (2008). Stakeholder participation for environmental management: A literature review. *Biological Conservation*. 141: 2417-2431 Morgan, R.K. (2012). Environmental Impact Assessment: the state of the art. *Impact Assessment and Project Appraisal*, 20(1)5-14 **Oct. 6 reading** tbd	***reading response due.** **Workshop 3**
Week 6 (Oct. 13)*no lecture on Oct. 11. ## Test 1 in-class.	
Week 7 (Oct. 18 & 20) Managing in Risk and Disaster: Brownfield sites & Natural Disasters. **Oct. 18 reading** De Sousa, C. (2002). Measuring the Public costs and benefits of brownfield versus greenfield development in the Greater Toronto area. *Environment and Planning B: Planning and Design*. 29: 251-280 **Oct. 20 reading** Doberstein, B. (2013) Towards guidelines for post-disaster vulnerability reduction in informal settlements. *Disaster*. 37(1): 28-47	**Assignment 1 due**
Week 8 (Oct 25 & 27) Land (1) **Oct 25 reading** Kuperan, K. and Sutinen, J.G. (1998). Blue Water Crime: Deterrence, Legitimacy, and Compliance in Fisheries. *Society Review*. 32(2): 309-338 Tolleson D., and Meimant, P. (2015). Global effects of changing land-use on animal agriculture. *Animal Frontiers* 5(4):14-23 **Oct 27 reading** Davis, C. The Politics of "Fracking": Regulating Natural Gas Drilling Practices in Colorado and Texas. *Review of Policy Research*. 29(2) 177-191. Movie in class: Gaslands	***Reading response due** **Workshop 4.**
Week 9 (Nov. 1 & 3) land 2: Protected Areas / Climate Change **Nov. 1 reading** Andrade G. ad Rhodes, J. (2012). Protected areas and local communities: an inevitable Partnership toward successful conservation strategies? *Ecology and Society* 17(4):14 **Nov. 3 reading**	***Reading response due**

May, B., and R. Plummer (2011). Accommodating the challenges of climate change adaptation and governance in conventional risk management: adaptive collaborative risk management (ACRM). Ecology and Society, 16(1), 47. [online] http://www.ecologyandsociety.org/vol16/iss1/art47/	
Week 10 (Nov 8 & 10) Water **Nov. 8 reading** Sivakumar, B. (2011). Water crisis: from conflict to cooperation - an overview. *Hydrological Sciences Journal* 56(4) 531-552 **Nov. 10 reading** Cohen A., and Davidson S. (2011). An examination of the watershed approach: Challenges, antecedents, and the transition from a technical tool to a governance unit. *Water Alternatives*. 4(1):1-14	
Week 11 (Nov. 15 &17) Globalization and the role of the State **Nov. 15 reading** Mackey et al. Policy Options for the World's Primary Forests in Multilateral Environmental Agreements. *Conservation Letters*. 8(2) 139-147. **Nov 17 reading** Rimmer, M. (2016). Greenwashing the Trans-Pacific Partnership: Fossil Fuels, the Environment, and Climate Change. 14(2):488-542	
Week 12 (Nov. 22 & Nov. 24): Waste or Resource? Podcast: Radiolab: "Poop Train" September 14 (2013). Accessible at http://www.radiolab.org/story/poop-train/	
Week 13 (Nov 29 & Dec. 1) Synthesis and Review. **Nov 29: optional reading TBD based on feedback:** **Dec 1: course review**	**Workshop 5.** **Assignment 2** **due.**

*The instructor reserves the right to make changes to the schedule as necessary.

Email policy (put GEOG 356 in the subject line of your emails)

- Important course updates will be posted using the NEWS tool on LEARN. Please check LEARN regularly. You can use the subscribe function on LEARN to facilitate this.
- Please direct course-related emails through the LEARN email function to ensure that you receive a prompt reply. I will aim to respond to emails within 2 working days (not including weekends). If you do not hear back from me within 3 days (not including weekends) please contact me again to ensure that I have received your email.
- Note that email is the official channel of communication between the University and its students. You are required to check your *uwaterloo.ca* email account regularly; I recommend that you check for course-related emails at least twice a week. If you use

another email service (e.g., gmail), it is your responsibility to ensure that mail sent to your *uwaterloo.ca* account is forwarded to your other account.

Laptop/mobile device policy

If you feel the need to use a computer or mobile technology, please restrict your activities to course related activities. Engaging in non-course activities on your computer or other device is distracting to both yourself and to neighbours.

Submission of assignments

Late policy: You are expected to take account of the possibility of computer failure in planning your time. Emailed or faxed assignments will not be accepted, unless approved in advance by the instructor. The penalty for late assignments is **5 %** of the total possible mark per day, including weekends and holidays. Assignments submitted more than 5 days after the due date will not be accepted unless we have made a prior arrangement.

Unless otherwise indicated, **please submit your assignments to the designated Dropbox on LEARN by 11:59 p.m. on the due date**. By submitting an assignment for this course you are agreeing to the following:

- You have properly referenced and footnoted all ideas, words or other intellectual property from other sources used in the completion of this assignment.
- You have included a proper bibliography, which includes acknowledgement of all sources used to complete this assignment.
- This is the first time you have submitted this assignment or essay (either partially or entirely) for academic evaluation.

Turnitin: Plagiarism detection software (Turnitin) will be used to screen assignments in this course for proper citation, referencing and instances of plagiarism. This is being done both as an educational activity for you and to verify that use of all material and sources in assignments is documented. You will be able to submit your assignments to Turnitin multiple times so that you can see how the software has analyzed your writing, and so that you can make adjustments. If you have objections to having your work submitted to Turnitin, please inform me by Sept. 29 to discuss alternative arrangements.

Academic Integrity & Plagiarism: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. For more information, please visit:
www.uwaterloo.ca/academicintegrity/
Please familiarize yourself with the University of Waterloo's policy dealing with plagiarism. Plagiarism offices are treated seriously by the University and can result in significant penalties being assessed (e.g. failing grade on an assignment, repeating a course, suspension or expulsion).

To Avoid Plagiarism: The use of other people's work **must** be properly acknowledged and referenced in all written material such as take-home examinations, essays, laboratory reports, work-term reports, design projects, statistical data, computer programs and research results. The properly acknowledged use of sources is an accepted and important part of scholarship. Use of such material without complete and unambiguous acknowledgement, however, is an offence under policy 71.

Please visit the on-line tutorial at http://www.lib.uwaterloo.ca/ait/. See 'Check your understanding' to learn more about what constitutes an academic offence.

When You Cannot Meet a Course Requirement Due to Illness or Other Reasons: There will be no unpenalized extensions on assignments except for illness, severe personal extenuating circumstances, or weather emergencies. When you find yourself unable to meet a course requirement because of medical, compassionate or other reasons, please advise me in writing by email; make sure to include your full name in your message. Where possible, you must contact the instructor **in advance** of the assignment due date, but otherwise as soon as possible after the due date. As a rule, you must provide appropriate documentation, for example, a note from your doctor indicating the dates during which you were ill, and describing the severity of your illness. *Manage your time carefully. Pressure of work alone is not an acceptable reason for seeking an extension without penalty.*

Missed tests/exams

Tests and examinations are mandatory, and thus, every effort should be made to attend. The only exceptions to this are those students who have a valid medical reason, personal or family emergency, etc.:

- Valid medical reason such as illness or accident (proof such as a note from Health Services is required);
- Significant personal or family emergency, death in the family, etc. (with suitable proof where possible);
- Other valid reasons beyond the control of the student (to be approved on a case-by-case basis at the discretion of the instructor). If you know in advance that you will not be able to make a test, please contact the instructor as far in advance as possible to discuss alternatives.

If you miss a test or exam for any reason:

1. Communicate to the instructor the reason you missed the test.
2. IMPORTANT! As soon as possible, please obtain a *valid medical, counselor's or other 'proof of absence' note* explaining the reason for your absence, degree of incapacitation, dates covered by the note, etc. Please make a copy of this note and give the copy to your instructor in person, or scan and submit it by email.
3. Due to the time consuming nature of creating a make up test, tests can only be written on the day originally scheduled. Do NOT assume a make up test is possible.

If you miss a test but do NOT have a doctor's/counselor's note or other valid explanation for your absence**,** explain the reason for your absence to the instructor (ideally during office hours

or by email). The instructor will determine on a case-by-case basis whether an alternative arrangement can be made, or whether to assign a zero on the test.

University policies

Unclaimed assignments will be retained until **one month** after term grades become official in Quest. After that time, they will be destroyed in compliance with UW's confidential shredding procedures.

Students with disabilities: AccessAbility Services located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register at the beginning of each academic term.

Mental Health: The University of Waterloo, the Faculty of Environment and our Departments consider students' well-being to be extremely important. We recognize that throughout the term students may face health challenges - physical and / or emotional. **Please note that help is available**. Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services http://www.uwaterloo.ca/counselling-services is an inclusive, non-judgmental, and confidential space for anyone to seek support. They offer confidential counselling for a variety of areas including anxiety, stress management, depression, grief, substance use, sexuality, relationship issues, and much more.

Religious Observances: Students need to inform the instructor at the beginning of term if special accommodation needs to be made for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4, www.adm.uwaterloo.ca/infosec/Policies/policy70.htm. When in doubt please contact the department's administrative assistant who will provide further assistance.

Discipline: A student is expected to know what constitutes academic integrity (check www.uwaterloo.ca/academicintegrity/), to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline, http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm. For typical penalties check Guidelines for the Assessment of Penalties, www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm.

Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance, http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm

Appeals: A decision made or penalty imposed under Policy 70 (Student Petitions and Grievances) (other than a petition) or Policy 71 (Student Discipline) may be appealed if there is

a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72 (Student Appeals) www.adm.uwaterloo.ca/infosec/Policies/policy72.htm