

University of Waterloo
School of Environment, Resources and Sustainability
ERS 101
Approaches: Environment, Resources and Sustainability (Winter 2018)
DRAFT January 2018

This syllabus is a contract between students and the professor. If you have any questions, please speak with me by January 16th, 2018.

1. INFORMATION

Professor: Dr. Sarah Wolfe (EV2 2011; sewolfe@uwaterloo.ca)
I am not available to respond to course-related emails between 5pm - 9am the next day. I will respond asap or please come to my weekly office hours to discuss.

Lecture: Tuesdays 10:30-12:20pm in PAS 2083

Office Hours: Tuesdays 1-3pm in EV2 2011

LEARN Available; frequent class announcements; all assignments submitted as .docx to Desire 2 Learn (aka "Learn") dropboxes.

Contact: Please contact your TA for routine inquiries. To reach me quickly, email is the best option: sewolfe@uwaterloo.ca

Tutorials: Tutorials start on Thursday January 18th and run every week unless otherwise noted. The first hour will be used for content review and skills practice; the second hour will be optional open office hours with your TA.

Tutorial 1	Thurs 10:30 - 12:20	AL 210	Karine David
Tutorial 2	Thurs 10:30 - 12:20	AL 209	Phoebe Stephens
Tutorial 3	Thurs 10:30 - 12:20	HH 124	Amanda Shamas
Tutorial 4	Thurs 12:30 - 2:20	AL 209	Karine David
Tutorial 5	Thurs 12:30 - 2:20	HH 2107	Phoebe Stephens
Tutorial 6	Thurs 12:30 - 2:20	HH 119	Amanda Shamas

2. TEACHING APPROACH: My teaching approach is one of 'solutions-based education'. It's easy to describe all the problems in the world – there are many – but much more difficult for all of us to engage and to make significant contributions. That everyone has a problem-solving role is not starry-eyed optimism but rather a pragmatic philosophy that gives meaning to my teaching and research.

I use a modified 'flipped classroom'. This means that I expect that everyone will have already read the foundation materials (e.g., chapters or articles) *before* the lecture. In this Winter 2018 course, that also means that some weeks you will have Reading Summary assignments due *before* the lecture. By finishing this foundational reading before class, it frees us to use the classroom time to extend or expand upon the readings, try new activities, debate, apply conceptual knowledge to case studies, ask questions etc. This flipped classroom approach is hugely beneficial for your experiential learning and knowledge retention and, to be candid, it is a lot more fun to teach. However, if you don't do the readings or assignments in advance, you'll be scrambling to keep up and you definitely won't learn as much, or as deeply, from what's going on in class.

Finally, in this course, I use the broad themes of 'environmental problems', 'water' and 'climate change' to explore some of the challenges we face as engaged citizens and the various approaches or roles we might play to address those challenges. PLEASE NOTE: this is not a 'water course' or a 'climate change course'. These broad, complex and nuanced environmental issues are just the hooks

for us to explore multidisciplinary environmental issues. So even if water or climate change aren't your primary interest – which is completely fine – the knowledge and skills you develop in this course can be applied across many different future contexts. By this I mean everything from other courses, co-op placements, negotiations with family, friends and potential employers.

3. LEARNING OBJECTIVES: In ERS 101, you will strengthen and extend the skills you developed in ERS 100. Upon completion of this course, you should be able to:

- Understand and explain the roles of, and challenges associated with, different disciplines in defining, analyzing, and resolving environmental issues (*we tend to focus a bit more on water but the skills can be applied to any environmental issue*);
- Begin to critically analyze and evaluate environmental claims and proposed solutions from different disciplinary and stakeholders' perspectives using a case study approach;
- Demonstrate your understanding of the conventions and requirements of scholarly research and communication (e.g., academic integrity, adequate referencing, and effective writing);
- Communicate complex environmental (*often, but not exclusively, water-focused*) ideas in different formats, including political policy briefs, scientific reports and scholarly responses; and,
- Demonstrate your ability to work, and meet deadlines, in a professional team environment.
- Complete the English Language Proficiency Exam (ELPE) milestone, which is a requirement for all students. A grade of 65% or higher in ERS 101 fulfills this milestone.

4. REQUIRED READINGS (available through LEARN)

1. Clayton S, Devine-Wright P, Stern PC, Whitmarsh L, Carrico A, Steg L, Swim J, Bonnes M (2015) Psychological research and global climate change. *Nature Climate Change*, 5: 640-646. doi:10.1038/nclimate2622
2. Gifford R (2011) The Dragons of Inaction: Psychological barriers that limit climate change mitigation and adaptation. *American Psychologist*, 66(4): 290.
3. Hudson M (2017) Wind beneath their contempt: Why Australian policymakers oppose solar and wind energy. *Energy Research & Social Science* 28:11-16.
4. Freudenberg, N. and C. Steinsapir (1991). Not in our backyards: The grassroots environmental movement. *Society & Natural Resources*, 4 (3): 235-245
5. Katz-Gerro et al., (2014). Environmental Philanthropy and Environmental Behaviour in Five Countries: is there convergence among youth? *Voluntas*, 26:1485-1509
6. Koger, Susan M. and Deborah Du Nann Winter (2010) Chapter 2: The Nature of Western Thought. *The Psychology of Environmental Problems*, 3rd Edition. Taylor and Francis Group, New York, NY. Pg: 31-62.
7. Lieberman B (2017) Ad campaign raises climate awareness using humor. Yale Climate Connections. <https://www.yaleclimateconnections.org/2017/05/ad-campaign-raises-climate-awareness-with-humor/>. Accessed April 15, 2017.
8. deLoe, Rob and Reid Kreutzwiser (2007). Chapter 5: Challenging the Status Quo – the evolution of water governance in Canada. In: Bakker, K. (Ed.), (2007) *Eau Canada: the Future of Canada's water*. Vancouver: UBC Press.
9. Sarewitz D (2004) How science makes environmental controversies worse. *Environmental Science & Policy*, 7(5): 385-403.
10. Schmidt A, Ivanova A, Schafer MS (2013) Media attention for climate change around the world: a comparative analysis of newspaper coverage in 27 countries. *Global Environmental Change*, 23(5): 1233-1248. doi: 10.1016/j.gloenvcha.2013.07.020
11. Vess M, Arndt J (2008) The nature of death and the death of nature: The impact of mortality salience on environmental concern. *Journal of Research in Personality*, 42: 1376–1380. doi:10.1016/j.jrp.2008.04.007.

5. COURSE PLAN, READINGS & ASSIGNMENTS

DATE	CONTENT KNOWLEDGE & SKILL DEVELOPMENT	READINGS	Assignment
Week 1 (Jan 9)	Course Intro and Admin details Knowledge Content: state of the world, what we know to be true and the power of worldviews/perspectives ½ lecture; ½ research activity	Koger & Du Nann Winter (2010)	
Week 2 (Jan 16)	Knowledge Content: the role of uncertainty in environmental research and policy making ½ lecture; ½ research activity	Sarewitz 2004	Reading Summary #1 (Sarewitz)
Week 3 (Jan 23)	Knowledge Content: why and how do people and societies make the environmental decisions they do? Part 1: Rationality ½ lecture; ½ research activity	Hudson 2017	Reading Summary #2 (Hudson)
Week 4 (Jan 30)	Knowledge Content: why and how do people and societies make the environmental decisions they do? Part 2: History and Culture ½ Video Content: <i>Journey in to the History of Water – Myths</i> ; ½ research activity		
Week 5 (Feb 6)	Guest: Anthony Turton, University of Waterloo RBC Visiting Fellow; <i>See his outline and bio sketch in LEARN. “Our Tempestuous Love Affair with Water”</i>		Reading (Video) Summary #3
Week 6 (Feb 13)	Knowledge Content: why and how do people and societies make the environmental decisions they do? Part 3: Psychology ½ Video Content: <i>Flight from Death</i> ; ½ lecture: applications of social psychology to environment/water	Clayton et al., 2015 Gifford, 2011 Vess & Arndt, 2008	Reading Summary #4 (Vess/Arndt; Clayton; Gifford)
READING WEEK (February 19-23rd, 2018)			
Week 7 (Feb 27)	Approach: using persuasive writing to engage and influence the public on environmental issues Guest: Bob Gibson, Alternatives and environmental journalism Guest: Thomas Homer-Dixon, Op Eds and trolls Guest: Sam Toman, social media opportunities and challenges	Schmidt et al., 2013 Lieberman, 2017	Optional: Group Project Plan (in Tutorials)
Week 8 (March 6)	Approach: working with and within the system to motivate policy change Guest: Dr. Rob deLoe issues of contemporary Canadian water governance Guest: Brenda Lucas on how provincial governments work and create environmental policy; Southern Ontario Water Consortium	deLoe & Kreuzwiser 2007	Letter to the Editor
Week 9 (Mar 13)	Approach: using the power of transdisciplinary environmental research to create change SERS Doctoral Candidates’ Researchers: Karine David, Evan Andrews, Bereket Negasi Isaac, Fabiola Alvarado Revilla		Policy Brief
Week 10 (Mar 20)	Approach: the risks and responsibilities of rebellion, i.e., working outside of the system SERS Undergraduate and Graduate Student Activists: Panel Discussion: To Be Announced	Freudenberg & Steinsapir, 1991 Katz-Gerro et al, 2014	
Week 11 (Mar 27)	In Class Poster ‘Conference’		Group Presentation
Week 12 (April 3)	In Class Test		In Class Test

6. COURSE ASSIGNMENTS

ASSIGNMENTS	VALUE	DUE DATE
<i>Critical thinking skills: identify key ideas, evidence and contradictions/debate</i>		
Reading Summary #1	10%	January 16 th , 2018
Reading Summary #2	10%	January 23 rd , 2018
Reading (Video) Summary #3	10%	February 6 th , 2018
Reading Summary #4	10%	February 13 th , 2018
<i>Critical thinking skills: issue analysis – define and explain the problem + implications</i>		
Letter to the Editor: 1 paragraph	5%	March 6 th , 2018
Conveying the Facts: 1 page Policy Brief	10%	March 13 th , 2018
<i>Critical thinking skills: problem definition, rational, action assessment and anticipate outcomes</i>		
Group Project Plan (in tutorial session)	0%	February 27 th , 2018
Group Conference Presentation (in class)	20%	March 27 th , 2018
<i>Critical thinking skills: content recall, connections and applications</i>		
Test (in class)	25%	April 3 rd , 2018

The full assignment descriptions are available through LEARN. The assignments will be discussed (briefly) in lectures but in much more detail during tutorials. It is in your best interest to attend your tutorial sessions. All assignments are to be submitted to the LEARN Dropbox as .docx on the due dates listed above; the Dropboxes close at 10:30am. The group poster will be presented during a class “conference”. The test will be completed within class time and is cumulative for the semester.

7. The Writing Centre

The Writing Centre works across all faculties to help students clarify their ideas, develop their voices, and write in the style appropriate to their disciplines. Writing Centre staff offer one-on-one support in planning assignments and presentations, using and documenting research, organizing and structuring papers, and revising for clarity and coherence.

You can make multiple appointments throughout the term, or drop in at the Library for quick questions or feedback. To book a 50-minute appointment and to see drop-in hours, visit www.uwaterloo.ca/writing-centre. Group appointments for team-based projects, presentations, and papers are also available.

Please note that writing specialists guide you to see your work as readers would. They can teach you revising skills and strategies, but will not proof-read or edit for you. Please bring hard copies of your assignment instructions and any notes or drafts to your appointment.

8. THE STUDENT’S RESPONSIBILITIES

As a student at the University of Waterloo, you have the following responsibilities. Contact me to discuss any concern you have regarding your responsibilities as outlined below.

Communication: It is your responsibility to check the course web page for information and updates. Also, as per university regulations, e-mail is the official route of communication between the University and its students. You are required to check your uwaterloo.ca e-mail account regularly (at least once per day). If you use another e-mail service, it’s your responsibility to ensure that mail sent to your university account is forwarded.

When You Cannot Meet a Course Requirement: If you cannot make an in-course requirement

because of medical, psychological or compassionate reasons, please advise me in writing (preferably by e-mail), with your name, student ID number, and e-mail contact information. Where possible, this should be done 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. You are required to attend (and participate in) all of the class meetings and field trips. Assignments must be submitted in LEARN on the designated day and time.

Manage your time carefully: Pressure of work alone is not an acceptable reason for seeking an extension without penalty. See the undergraduate calendar for additional information on regulations and procedures for Academic Consideration.

Laptop policy: Developing an ability to listen attentively is an important aspect of your university education and, for that matter it is an important life skill. **Laptops undermine that learning objective.** If it is absolutely necessary for you to use a laptop then please use one only for taking course-related notes. Please refrain from surfing, chatting, downloading video on your laptops, smartphones, iPads etc. as it distracts your classmates and detracts from everyone's learning process.

9. ASSIGNMENT SUBMISSION AND LATE PENALTIES

All assignments must be submitted on the LEARN website before 10:30am on the day they are due. Unless you have made advance arrangements with me – based on medical or family emergencies – late assignments will be penalized at **5 percent (5%) of the value of the assignment per day, including Saturday and Sunday.** I will not accept assignments more than 5 days after the due date unless there are exceptional circumstances and with advance notice.

Copies of Assignments: Please keep copies of all out-of-class assignments and evaluation forms. You may be asked to resubmit work at any time, including after the end of the course.

Intellectual Property:

Students should be aware that this course contains the intellectual property of their instructor, TA, and/or the University of Waterloo. Intellectual property includes items such as:

- Lecture content, spoken and written (and any audio/video recording thereof);
- Lecture handouts, presentations, and other materials prepared for the course (e.g., PowerPoint slides);
- Questions or solution sets from various types of assessments (e.g., assignments, quizzes, tests, final exams); and
- Work protected by copyright (e.g., any work authored by the instructor or TA or used by the instructor or TA with permission of the copyright owner).

Course materials and the intellectual property contained therein, are used to enhance a student's educational experience. However, sharing this intellectual property without the intellectual property owner's permission is a violation of intellectual property rights. For this reason, it is necessary to ask the instructor, TA and/or the University of Waterloo for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository).

Permission from an instructor, TA or the University is also necessary before sharing the intellectual property of others from completed courses with students taking the same/similar courses in subsequent terms/years. In many cases, instructors might be happy to allow distribution of certain materials. However, doing so without expressed permission is considered a violation of intellectual property rights.

Please alert the instructor if you become aware of intellectual property belonging to others (past or present) circulating, either through the student body or online. The intellectual property rights owner deserves to know (and may have already given their consent).

Academic Integrity: 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. The University's guiding principles on academic integrity can be found here:

<http://uwaterloo.ca/academicintegrity>. ENV students are strongly encouraged to review the material provided by the university's Academic Integrity office specifically for students:
<http://uwaterloo.ca/academicintegrity/Students/index.html>

Students are also expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for their actions. Students who are unsure whether an action constitutes an offense, or who need help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. Students may also complete the following tutorial: <https://uwaterloo.ca/library/get-assignment-and-research-help/academic-integrity/academic-integrity-tutorial>

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: <https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-71>. Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance: <https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-70>

Note for students with disabilities: [AccessAbility Services](#), located in Needles Hall, Room 1401, 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 with [AccessAbility Services](#) at the beginning of each academic term.

Mental Health: The University of Waterloo, the Faculty of Environment and our Departments/Schools 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. Counseling Services <http://www.uwaterloo.ca/counselling-services> is an inclusive, non-judgmental, and confidential space for anyone to seek support. They offer confidential counseling 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. See Policy 70 - Student Petitions and Grievances, Section 4, www.adm.uwaterloo.ca/infosec/Policies/policy70.htm. When in doubt please contact your Undergraduate Advisor for details.

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

Unclaimed assignments: Unclaimed assignments will be retained for one year after the semester ends. After that time, they will be destroyed in compliance with UW's confidential shredding procedures.

Communications with Instructor and Teaching Assistants: All communication with students must be through either the student's University of Waterloo email account or via Learn. If a student emails the instructor or TA from a personal account they will be requested to resend the email using their personal University of Waterloo email account.

Recording lectures: Use of recording devices during lectures is **not allowed** unless there is explicit permission of the instructor of the course.

- If allowed, video recordings may only include images of the instructor and not fellow classmates.
- Posting of videos or links to the video to any website, including but not limited to social media sites such as: Facebook, twitter, etc., is strictly prohibited.

Co-op interviews and class attendance: Co-op students are encouraged to try and choose interview time slots that result in the least amount of disruption to class schedules. When this is challenging, or not possible, a student may miss a portion of a class meeting for an interview. Instructors are asked for leniency in these situations; but, a co-op interview does not relieve the student of any requirements associated with that class meeting.

When a co-op interview conflicts with an in-class evaluation mechanism (e.g., test, quiz, presentation, critique), class attendance takes precedence and the onus is on the student to reschedule the interview. CECA provides an interview conflict procedure to manage these situations. Students will be required to provide copies of their interview schedules (they may be printed from WaterlooWorks) should there be a need to verify class absence due to co-op interviews.