

University of Waterloo
School of Environment, Resources and Sustainability
ERS 101
Approaches: Environment, Resources and Sustainability (Winter 2019)
DRAFT DECEMBER 18 2018

This syllabus is a contract between students and the professor. If you have any questions, please speak with me by January 16th, 2019.

1. INFORMATION

Professor: Dr. Sarah Wolfe (EV2 2011; sewolfe@uwaterloo.ca)
I do not usually 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 12:30-2:20pm in RCH 103

Office Hours: Thursdays 10:30am-12:30 pm 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 are scheduled for either Wednesdays or Thursdays. They start on either Wednesday January 9th or Thursday January 10th.** Please check your scheduled tutorial section carefully because you must go to that section and location. Tutorials run every week unless otherwise noted.

Tutorial 105	Wed 8:30 - 10:20	Lauren Smith	HH 124
Tutorial 106	Wed 8:30 - 10:20	Sam Kroetsch	AL 210
Tutorial 103	Thurs 8:30 - 10:20	Sam Kroetsch	HH 344
Tutorial 104	Thurs 8:30 - 10:20	Alessandra Aponte	AL 209
Tutorial 101	Thurs 2:30 - 4:20	Alessandra Aponte	HH 344
Tutorial 102	Thurs 2:30 - 4:20	Lauren Smith	AL 209

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 2019 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 the course requirements, 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 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 and/or Library Reserves¹)

1. Burke, B. L., Martens, A., & Faucher, E. H. (2010). Two decades of Terror Management Theory: A meta-analysis of mortality salience research. *Personality and Social Psychology Review, 14*(2), 155–195. <https://doi.org/10.1177/1088868309352321>
2. 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
3. Gifford R (2011) The Dragons of Inaction: Psychological barriers that limit climate change mitigation and adaptation. *American Psychologist, 66*(4): 290.
4. 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.
5. Koger, Susan M. and Deborah Du Nann Winter (2010) Chapter 4: Social Psychology: under the influence of others. *The Psychology of Environmental Problems, 3rd Edition*. Taylor and Francis Group, New York, NY. Pg: 95-130.
6. Metlay, Daniel and Daniel Sarewitz (2012). Decision Strategies for Addressing Complex, “Messy” Problems. *The Bridge. 42*(3): 6-16 [highlighted sections only]
7. Sarewitz D (2004) How science makes environmental controversies worse. *Environmental Science & Policy, 7*(5): 385-403. [highlighted sections only]
8. Strang Veronica (2014). Lording It over the Goddess: Water, Gender, and Human-Environmental Relations. *Journal of Feminist Studies in Religion, 30* (1): pp. 85-109
9. 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
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¹ We can talk about why I use journal articles and chapters instead of textbooks during class.

Week 1 (Jan 8)	Course Intro and Admin details Knowledge Content: <i>state of the world, what we know to be true and the power of worldviews/perspectives</i> ½ lecture ½ research activity		
Week 2 (Jan 15)	Knowledge Content: <i>the role of uncertainty in environmental research; why and how do people and societies make the environmental decisions they do?</i> Part 1: Rationality, 'messy' problems and environmental policy making ½ lecture ½ research activity	Koger & Du Nann Winter 2010 Chapter 2 Metlay & Sarewitz 2012 (highlight only); Sarewitz 2004 (highlight only)	
Week 3 (Jan 22)	Knowledge Content: <i>why and how do people and societies make the environmental decisions they do?</i> Part 2: History, culture, religion, lifestyle and environment (water) ½ video content: <i>Journey in to the History of Water – Myths</i> ½ research activity	Strang 2014	Reading Summary #1: Koger & Du Nann Winter; Metlay & Sarewitz 2012 Sarewitz 2004
Week 4 (Jan 29)	Knowledge Content: <i>why and how do people and societies make the environmental decisions they do?</i> Part 3A: Psychology, society and the environment ½ lecture ½ research activity	Clayton et al., 2015 Gifford 2011 Koger & Du Nann Winter 2010 Chapter 4	Reading Summary #2: Video + Strang
DATE	CONTENT KNOWLEDGE & SKILL DEVELOPMENT	READINGS	Assignment
Week 5 (Feb 5)	Knowledge Content: <i>why and how do people and societies make the environmental decisions they do?</i> Part 3B: Psychology, society and the environment ½ video content: <i>Flight from Death</i> ½ lecture: applications of social psychology to environment/climate change/water	Burke et al., 2010 Vess & Arndt, 2008	Reading Summary #3: Clayton et al; Gifford; Koger & Du Nann Winter
Week 6 (Feb 12)	In Class Test		In Class Test #1
READING WEEK (February 18-22nd, 2019)			
Week 7 (Feb 26)	Approaches to creating change: <i>in class project pitches "conference"</i>		Group Presentation in class
Week 8 (March 5)	Approach: <i>working with and within the system to create policy change</i> ½ lecture with Guests: TBD on how provincial governments work and create environmental policy; Southern Ontario Water Consortium; Dr. Rob deLoe on municipal and federal water governance		

	½ research activity		
Week 9 (Mar 12)	Approach: <i>using transdisciplinary environmental research to create change</i> Guest Professor: Evan Andrews SERS Doctoral Candidates' Researchers: TBD		
Week 10 (Mar 19)	Approach: <i>the risks and responsibilities of rebellion and entrepreneurship, i.e., working outside of the system</i> SERS Undergraduate and Graduate Student Activists: TBD		
Week 11 (Mar 26)	Reflecting on approaches to creating change: <i>project results presentation</i>		Group Presentation in class
Week 12 (April 2)	In Class Test #2		In Class Test #2

6. COURSE ASSIGNMENTS

ASSIGNMENTS	VALUE	DUE DATE
<i>Critical thinking skills: identify key ideas, evidence and contradictions/debate</i>		
Reading Summary #1 (3 ss pages max)	10%	January 25 th
Reading Summary #2 (2 ss pages max)	10%	February 1 st
Reading Summary #3 (3 ss pages max)	10%	February 8 th
<i>Critical thinking skills: content recall, connections and applications</i>		
Test #1 (in class)	15%	February 12 th
Test #2 (in class)	15%	April 2 nd
<i>Critical thinking skills: problem definition, rational, action assessment and anticipate outcomes</i>		
Group Project Plan & Presentation (3 ss pages max + 1 pg timeline; 5 min in class)	5%: presentation	Presentation: Feb 26 th (in class)
	10%: plan	Plan: March 1 st
Group Project Outcomes Report & Presentation (10 ss pages max; 5 min in class)	5%: presentation	Presentation: March 26 th (in class)
	20%: report	Report: March 29 th

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 5:00pm for every assignment (*not presentations because nothing uploaded...*). The group presentations will be presented during two class "conferences". The tests will be completed within class time and is cumulative up until that date.

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, shopping, downloading video on your laptops, smartphones, iPads etc. as it distracts your classmates and detracts from everyone's learning process (plus, it's really rude).

9. ASSIGNMENT SUBMISSION AND LATE PENALTIES

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.

- **I do not allow recording devices during my lectures or tutorials.**
- 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) if you need to verify class absence due to co-op interviews.