

ERS 270 Sustainable Agriculture - Winter Term 2014

Tuesdays & Thursdays 1430-1550

J.R. Coutts Engineering Lecture Hall (RCH) 308

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Class Schedule

Readings finalized during Week 1

Dates	Wk	Classes (Tu & Th 1430-1550) All lectures in RCH 308 unless notified on Learn	Reading(s) for Class (posted on Learn site)
Jan 7/9 Both/MW	1	Course & Basic Ag History Intro. Soil Sustainability Intro; Ag Production Activity .	1. See first update on Learn website; 2. Conway 1987; Smithers & Furman 2003; Thampapillai & Anderson 1994; Wadley et al. 2006.
Jan 14/16 MW/DR	2	Soils: Physical Traits and Hydrology. Soils: Microorganisms; Carbon/Nitrogen; Compost; Research Paper .	1. Fox 2003; Hamza & Anderson 2005; Sadler & Turner 1994; 2. Bruun et al. 2006; Kramer et al. 2006; Maiti et al. 2011; Plenchette et al. 2005.
Jan 21/23 MW/DR	3	Soil Nutrients. Nutrient Management & Biocides.	1. Childers 2011; Lal 2009; Römheld & Kirby 2010; Vitousek et al. 1997; 2. Garaeu 2004; Krutz et al. 2005; Shelton & Badenez-Perez 2006; Taylor et al. 2007.
Jan 28/30 MW/MW	4	Production Scale & Intensity; Rural Communities; Ag Production Activity Due . Land Management.	Boucher 2011; Hofmann 2005; Lovell & Sullivan 2006; Wood et al. 2006.
Feb 4/6 MW/DR	5	Land Use – Vulnerability & Resilience. Long-term Effects & Alternatives.	1. Anil 1998; Fiskel 2003; Gliessman 1992; 2. Mayer 2008; Rabelais et al. 2001; Wood et al. 2006.
Feb 11/13 DR/DR	6	Agroforestry; Research Papers Due . Conservation; Restoration; Novelty.	1. Diemont et al. 2010; Kilian et al. 2006; Nair 2006; Torquebiau 1992; 2. Bengtsson et al. 2005; Hobbs et al. 2009; Young 2000.
<i>Feb 18/20</i>	<i>7</i>	<i>Winter Study Week Feb. 17-21 – No Class Lessons or Assigned Readings... Study!</i>	
Feb 25/27 MW/MW	8	MIDTERM! Ag Effects on Climate & Climate Change.	2. Anwar et al. 2013; Wall & Smit 2005; West & McBride 2005.
Mar 4/6 DR/DR	9	GUEST LECTURE: Industrial Hemp & Sustainable Agriculture. Ag Science & Technology.	1. Hanks 2007; Iványi & Izsáki 2007; Smoth-Heister 2008; 2. Dalal et al 2006; Kern 2002; Schermer & Hoppichler 2004; web link on Learn website.
Mar 11/13 DR/DR	10	Alternate & Non-food Crops. Biofuels, Midterms Returned .	1. Cox et al. 2010; Kennedy 2012; web links on Learn; 2. Giampetro & Ulgiati 2005; Solomon 2010.
Mar 18/20 DR/DR	11	Aquaculture; Horticulture; Urban Ag. Local; Seasonal; Dietary Sustainability.	1. Beck et al. 2001; TED Talk – "How I Fell in Love with a Fish" (link on Learn website); Naylor & Burke 2005; 2. DeLind 2011; Hodges 2005; O'Kane 2011; Starr et al. 2003.
Mar 25/27 Both	12	Student-Led Critical Analysis Presentations (3). Student-Led Critical Analysis Presentations (3).	
Apr 1/3 Both	13	Student-Led Critical Analysis Presentations (3). Student-Led Critical Analysis Presentations (1) & In-Class Review for Final.	
Apr 8 or after		FINAL EXAM (Date & Location TBD).	

ERS 270 Evaluations/Assignments, Procedures, and Policies

Required course text. The ERS 270 syllabus, class lesson slides, required class readings. Readings are online at the Learn site:

Users can login to LEARN via: <http://learn.uwaterloo.ca/> (use your WatIAM/Quest username and password).

Documentation is available at: <https://uwaterloo.ca/learn-help/>

There are no lecture packets or additional textbooks required for this course. All materials will be available via the Learn course website noted above.

Your instructors. Donnie Rayome (DR) and Meaghan Wilton (MW) are the primary instructors, while Amy Bumbacco is the teaching assistant. Donnie and Meaghan are both Ph.D. candidates in ERS with research and professional duties this term. Meaghan will be more involved with content delivery up to the midterm, while Donnie will be more involved thereafter. Both instructors will be heavily involved in grading and evaluation as will the teaching assistant.

Evaluation of students.

1. Class participation. 5% of final grade. Includes in-class questions and assignments.
2. Agriculture Production Activity. 10% of final grade. Using the instruction sheet posted on Learn, students will complete a two-part activity using the FAO's FAOSTAT website. In Part One, students will choose a country and production commodity, then navigate the various FAOSTAT websites and answer questions about their choices. Part Two asks students to expand upon Part One and produce an agricultural production report from some of the more interesting findings. The Part Two report will be four pages total, with three pages of report body and a final reference page. Reports will be assessed on both content and style, and are expected to adhere to the formatting guidelines listed below including font usage, spacing, and APA style. Parts One and Two will be combined and submitted online *at the same time*. When submitted, the following needs to be included:
 - Title Page
 - Part One – FAOSTAT questions and answers
 - Part Two – Agricultural Production Report
 - References

Exact details, including grading rubric and due date, will be available during week one, second lecture

3. Research paper and 12 minute critical analysis seminar based on research papers. Paper is 20% of final grade while seminar is 15% of final grade.

Research paper: Students will write a research paper based on "the changing world of sustainable agricultural, environmental, and social factors". Papers will be five pages total, with four pages as the paper body and at least one page of references. These should include a mix of academic literature, appropriate professional "grey literature", and an analysis of the blogosphere or other popular (and possibly commercial) sources. Papers should include a mix of impartial sources as well as critiques and offer solutions for focused topics within the broader domain of the larger chosen topic. Papers will be assessed on both content and style, and are expected to adhere to the formatting guidelines listed below including font usage, spacing, and APA style. Students are expected to work independently on papers that address one of the topics below, with maximum five students per topic:

- 1) Social networks and sustainable agriculture
- 2) Environmental/ecological economics and sustainable agriculture

- 3) Packaging and sustainable agriculture
- 4) Microcredit & slow money: Investing in sustainable agriculture
- 5) Corporatization, green washing, and sustainable agriculture
- 6) Farm worker rights, immigration policies, and sustainable agriculture
- 7) Food crises: A problem of production, distribution, and/or consumption
- 8) Energy efficiency and sustainable agriculture
- 9) Water usage and sustainable agriculture
- 10) Organic vs. free range production

Exact details, including grading rubric and due date, will be available during week two, second lecture.

Presentations: Students are expected to combine their independent research paper findings into a 12-minute seminar presentation. Students will work in groups of four to five (expectations adjusted accordingly based on group size). Presentations will be graded on content/analysis (80%) and presentation style (20%). The 12-minute time limit will be strictly enforced (groups will be warned when approaching time). Presentations will be delivered during the last two weeks of class. Presentations should have a mix of visuals (you can embed links to images and cite the source at the bottom of a slide to comply with copyright restrictions) and text that critiques and offers solutions for focused topics within the broader domain of whichever one you chose. Similar to research papers, presentations should include a mix of academic literature, appropriate professional “grey literature”, and an analysis of the blogosphere or other popular (and possibly commercial) sources (please feel free to expand upon the mix included in your papers). *Sign-up sheet provided during week two, second class – first come first served.* Date of seminar presentations will be determined by lot.

4. **Midterm exam.** 20% of final grade. Written during Feb 25 class lecture period. Format may include multiple choice, short answer, and essay. **All class lessons from Jan 7 to Feb 13 (which summarize some readings), independent readings (including web links and documents on Learn), and content of in-class activities will be tested on the midterm exam.**
5. **Final exam.** 30% of final grade. Written during scheduled April exam period (includes extra days at end of exam schedule reserved as make-up dates in case of poor weather). The Registrar’s Office determines this date and time – we do not choose this date and time. If the location differs from RCH 308, this WILL be posted on the Learn course website in advance. Format may include multiple choice, short answer, and essay. There will be an in-class review session following the final presentation. **All class lessons (which summarize some readings), independent readings, and content of in-class activities and student seminars will be tested on the final exam.**

You are expected to review assigned readings before and after each class. All material from readings may be examined but material in lessons will be the emphasis. For your assignments, you can use the readings as a way to determine key words and key ideas, and to help find additional resources. For exams, readings may help to explain and illustrate your answers (we will not expect obscure details from readings on exam answers – this course will not focus on trivial information).

You will find that class lessons emphasize certain aspects or parts of the material in the readings; this emphasis will be reflected on exams. However, course structure necessitates that some independent readings and seminar presentations that will be assessed on the final exam. This is particularly true for the last few classes as you are expected to discuss salient ideas from both the assigned readings and from the student presentations. Again, no trivia here; we are interested in your ability to integrate material from readings and

focus on the main implications from selected topics within the presentations.

Students are expected to be prepared for class and participate in discussions. Class lessons will follow the course readings. Students are expected to do all the readings but to use their time wisely – focus on the main messages of a given reading (the abstracts are a great summary of important ideas). University courses often have many assigned readings because there is much material to cover in a relatively short time period.

Late assignment penalties apply to all cases except for those few extensions granted for medical reasons or for professional counseling related to serious personal problems – extensions can be granted with proper documentation or discussion well in advance (at least 10 days) before deadline if the reason for extension is not an emergency situation. We understand life happens and are sympathetic to those who recognize early on that other responsibilities may create problems meeting deadlines (this includes those who are parents, have difficult employment hours, or other unavoidable conflicts). However, this sympathy is within reason, and we are less inclined to those with known long-term stresses brought to our attention, for example, the morning an assignment is due. As such:

- Assignments submitted up to 24 hours past due are assessed a 10% deduction per 24 hours.
- Assignments submitted up to 168 hours are assessed up to a 70% deduction.
- Assignments submitted more than 168 hours past due receive “0” (zero).

Assignment formatting/style is as follows:

- Type all assignments.
- Use a true-type serif (*e.g.* Times New Roman) 12 point font with at least 2.0 cm margins all around and left justification.
- 1.5 line spacing - the submissions are electronic.
- Do not start sections on a separate page if this means leaving a substantial portion of a page blank.
- Pages must be numbered, with numbering beginning after the title/cover page.
- Use of sub-headings and use of 1st person active voice are preferred.
- You CANNOT simply cut/paste copyrighted tables, figures, or photos from sources; they must be cleared for ‘fair use’ (meaning if cleared, they would say this on a website and you must allude to that statement) or you need written permission if the copyright requires it. Do NOT violate copyright. It is plagiarism and very illegal beyond the university context. When in doubt, please speak with a course professor, teaching assistant, or another knowledgeable source such as your academic advisor.
- Consistent with most other ERS courses, we will use [APA style](#) (to see what this means and how to do it, just follow the link embedded in “APA style” term above [if using the e-version of the syllabus] or just Google it if you are reading this using the hardcopy of the syllabus).
- All assignments must have proper references for included sources located in a separate reference section. This section should follow the main body of the assignment and formatted using the above-noted APA style. This reference section is excluded from the page count. This section can be single-spaced.
- Use a format that is compatible with Microsoft Word 2010 (such as .doc or .docx extensions).
- Submit files with a unique and meaningful file name, *e.g.* best idea is to use something like “Surname 270 assignment 1.doc”. *Failure to do this important step means we will deduct 2% from your final course grade. Why the heavy penalty? Ever try sorting through dozens of assignments with the same name (e.g. “assignment 1”)?*

The University of Waterloo has a series of specific *academic policies, procedures and guidelines* that students must be aware of and follow. All course syllabi in the Faculty of Environment are required to include the following information:

- **Students with Disabilities:** Help is available via the [AccessAbility Services](#) website.
- **Academic Integrity:** To create and promote a culture of academic integrity, the behavior of all members of the University of Waterloo is based on honesty, trust, fairness, respect, and responsibility.
- **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](#).
- **Discipline:** A student is expected to know what constitutes academic integrity, 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 professors, teaching assistant, 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](#) (this also has information on categories of offenses and types of penalties).
- **Appeals:** A student may appeal the finding and/or penalty in a decision made under Policy 70 – Student Petitions and Grievances (other than regarding a petition) or Policy 71 – Student Discipline if a ground for an appeal can be established. Consult [Policy 72 – Student Appeals](#).