



ERS 301 Sustainability Thought, Practice and Prospects

Fall 2021

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Course organization:

Lectures: Tuesdays 12:30-2:20 pm, AL 116

Tutorials: 101 Thursdays 10:30-11:20 am, HH 336

102 Thursdays 11:30 am-12:20 pm, HH 336

103 Thursdays 1:30-2:20 pm, HH 336

104 Friday 10:30-11:20 am, HH 336

105 Friday 11:30 am-12:20 pm, HH 336

106 Friday 1:30-2:20 pm, on-line

[special arrangements for those in far distant time zones or otherwise unable to attend any of the tutorials]

Course website: login at <http://learn.uwaterloo.ca/> with your WatIAM/Quest username and password. Remote access to lectures and the on-line tutorial is through LEARN Virtual Classroom, under the “Connect” tab.

The basics:

- 12 sessions (weekly except for Reading Week)
- this syllabus for the detailed information
- the lectures (weekly except for Reading Week):
 - a concise formal version of each lecture posted on-line on Mondays and
 - an in-person and on-line “lecture” session on Tuesdays for interactive presentation and discussion of the lecture material
- the tutorials (weekly except for Reading Week and the final session):
 - five in-person tutorial groups and one on-line tutorial group for discussions and presentations on the questions, issues and readings for each session
- the readings: many to choose from for each session; also posted on LEARN
- the assignments:
 - informed participation in the tutorials and the lecture discussion sessions
 - three tutorial presentations with presentation notes considering two or more selected readings in light of the relevant session questions and lecture

- three reports: one for each of the three parts of the course
- dropboxes in the course Learn site for each of the written assignments
- announcements, reminders, etc.: on-line as well as in class
- email access to instructor and TAs for individual issues and questions

Course description and rationale

Humans with their big brains now dominate the planet. This is a mixed accomplishment. For ecosystems and non-human creatures (excepting rats, cockroaches, selected bacteria, and some others), the results have been mostly unfortunate. For humans themselves, many changes have been positive (e.g., poorly distributed but generally greater infant survival, life-expectancy, literacy, access to goods and services, and concern about the pain and suffering of others). But other major trends (the combination of ecological stresses, climate change, persistent poverty and expanding inequality) are towards deeper unsustainability. For your own foreseeable interests, and certainly also for those of your generation's grandchildren, and for many other life forms on the planet, we need to reverse the negative trends and find positive as well as practical ways to live more lightly on the planet, more equitably among ourselves, and better all round.

All that entails considerable intentional change – at a global as well as local and regional scale and for the long run as well as to deal with immediately pressing matters. Because we have not done much intentional and collaborative global change before, we will have to rely to some extent on trial-and-error experimentation. But it would help to have initial working answers to three basic questions:

- What ways of thinking and living would provide the foundations for lasting wellbeing (address current realities, respect the capacities of the biosphere, match human capacities and aspirations, and learn from past mistakes)?
- How can we deal with the enormous complexity of living on Earth in a way that will help us achieve and maintain lasting wellbeing?
- How can we best push the big transformative and restorative changes needed to move towards more sustainable ways of living?

In this course, we will be taking a broadly historical approach to these questions. The idea is that before leaping to answers, we should learn what we can from what we've done in the past. We should see what abilities and possibilities we've demonstrated, what mistakes we've made, what we've learned, what might be realistic as well as desirable in the future.

The record of human experiments with many options reveals much about the foundations for wellbeing, including about

- what ideas and practices and changes worked well (seem to have fit reasonably well with the requirements for sustainability, at least in their times);
- what ideas and practices and changes worked poorly, maybe because they missed something crucial or had some nasty aspects or were misapplied;
- what people can and should understand and do to deal with each other and the natural environment successfully;
- what humans find satisfying or fulfilling; and

- what humans are at least potentially capable of doing and being;

about dealing with complexity and uncertainty:

- how people in various cultures and eras, and with different modes of making a living (hunting/gathering/foraging, small and big agriculture, industrial production and consumption, etc.) have understood and dealt with the complexities of social and biophysical relations;
- how they have prepared for or accommodated mystery, uncertainty and surprise;
- what has happened when they overreached;
- how they learned from experience; and
- what we can learn from past experience with trying to make a living and maintain wellbeing in a world we understand at best imperfectly; and

and about how significant change happens:

- whether shifts in ideas change practices, or changes in practices shift ideas, or both affect each other;
- how social and socio-ecological transitions have happened in the past; and
- whether there are any lessons for how can we push social and socio-ecological change in a desired direction now.

While this course is about the history of ideas and practices, the purpose is to illuminate what to do now and in the future. There is no assumption that the lessons from past experience provide an adequate basis for deciding what to do now. Also, the findings will not point to a single set of answers. But exploring a diversity of understandings and strategies for change is useful, so long as we seek a better-informed diversity, and gain a better understanding of the grounds for and doubts about the big assumptions commonly made in deliberations about how best to move towards better futures.

Six starting points

The course begins with the following observations:

- Pursuing sustainability is as much a social and economic challenge as an ecological one; political, philosophical, psychological and spiritual aspects are often at play as well. Sustainability involves all these considerations and their many and complex interconnections. That includes all of our relations with each other and with nature.
- The world has always been far more complex than we could understand and manage with deserved confidence. Dealing with mystery, uncertainty and surprise has been a challenge addressed in all societies, in diverse ways, not all of them successful.
- Societies, past and present, have adopted many different packages of relations among people and with nature, with different basic working assumptions about what defines the good human life, how to design appropriate socio-economic and political arrangements, and how "nature" works and what that entails for living as part of nature.
- In most societies, the assumptions involved were/are rarely presented and discussed openly. Often, they are just accepted as the way things are. The

- resulting ways of seeing are embedded in and reinforced by society's main social traditions and institutions (customs and religion, government and economy, science and technology, etc.).
- Each particular package of assumptions leads to a particular way of seeing the world that inevitably influences how people act. A way of seeing the world (including humans, nature and their relations and possibilities) functions as a kind of filter on reality. It favours some perspectives and possible solutions while obscuring or devaluing others.
 - We are now in the unique historical position of being at least to some extent aware of many different possible ways of seeing and treating the world. That position gives us a basis for examining the package of assumptions that prevails in our society today. We can compare our package to other options that have been tested in other places and times. Most importantly, we can, if we wish, create new combinations of ideas and practices that are better suited to current challenges, opportunities and understandings.

Lectures and lecture discussion sessions

A formal narrated powerpoint version of each session's lecture will be posted on-line on the course LEARN site (under the "Content" tab) early Monday for each week there is a course session (not Reading Week). The formal online lectures are divided into relatively short parts for ease of downloading.

The Tuesday in-person "lecture" session will be used for a more interactive presentation and discussion of the lecture material and associated issues. If the technology cooperates, the sessions will be accessible to on-line course participants and/or recorded and posted in the LEARN Virtual Classroom for those unable to attend in person.

Readings

The main readings for the course are listed the separate document with the details about the 12 sessions of the course and the agenda, questions and readings for each session. Almost all are posted on the ERS 301 LEARN website. For the few exceptions, URLs are provided. Participants are also encouraged to draw from other sources of reliable illumination (not just readings) for the course work, including the assignments.

More readings are provided than anyone is likely to read. Participants in the course are advised to give several of the weekly readings at least a very quick skim and concentrate on two or three meaty ones. In the reports assignments, you are expected to demonstrate that you are generally familiar with the material in the readings as well as the lectures.

It is best to do the readings *before* the lecture discussion session. Otherwise the lectures will be obscure and the discussions will not be as richly informed. As will be outlined below, familiarity with the readings is also a key factor in the tutorials.

Tutorials

Tutorials will be held on Thursdays and Friday for each of the first eleven sessions (not Reading Week and not the week of the final session). We have created six tutorial groups,

five in-person and one on-line. You can find your group on the LEARN site, in the “classlist” information under the “Connect” tab (select view by Groups and view the tutorials). The tutorial assignments are outlined below.

Basically, the tutorials for each session are meant to provide a forum for discussing the questions for the session and for sharing insights from the readings.

Summary of assignments and grading

Briefly, the formal assignments are as follows:

Participative engagement in the course: Each student is expected to engage knowledgably and actively in the weekly tutorial sessions, discussing the questions set out for each session in light of the readings and lectures. Participative contributions are to be graded in two sets – participation for sessions 1-6 (10%) and participation for sessions 7-11 (10%). Recognition will also be given for engagement in the lecture sessions, if adequate access can be ensured for on-line participants.

Tutorial presentations: In the tutorials, each student is expected to make three 2-minute presentations – one each for sessions 3-5, 6-8, and 9-11. The presentations are to consider two or more selected readings in light of the relevant session questions and the session lecture. The presentation notes are to be submitted to the relevant course dropbox (5% for each presentation = 15% for all three).

Reports: Each student is expected to prepare and submit three reports:

- Report 1, covering sessions 1-3, is due October 6 (15%).
- Report 2, covering sessions 4-7 but also considering the earlier material, is due November 10 (20%).
- Report 3, emphasizing sessions 8-12 but drawing from the whole course, is due December 13 (30%).

These assignments are meant to be mutually supporting. They are to be a means of building, integrating and reporting on an expanding understanding of how people in various contexts have dealt with the big challenges of making a living with each other and the biophysical environment, and what we can learn from that experience.

Details on assignments and grading

Participative engagement in the course

Each student is expected to engage knowledgably and actively in all of the tutorial sessions, discussing the questions set out for each session in light of the readings and lectures. Recognition will also be given for engagement in the lecture sessions, if adequate access and engagement opportunity can be ensured for on-line participants.

Evaluation of participation will be based on the quality as well as the extent of contributions. Evaluation of participation quality will take the following criteria into account:

- understanding of the concepts and issues introduced and insight into their implications;
- evident familiarity with the readings and the lecture material;
- careful listening and thoughtful reflection on the tutorial presentations and others' statements before making comments;
- communication skills (clear, constructive, articulate, etc.);
- synthesis, integration and drawing connections between and among the immediate subject matter and ideas, issues and insights from the course materials or elsewhere; and
- accuracy and creativity in illustrating implications.

There will be bonus marks for humour.

Participation contributions are to be graded in two sets – participation for sessions 1-6 (10%) and participation for sessions 7-11 (10%).

Recognition will also be given for engagement in the lecture sessions, if adequate access can be ensured for on-line participants.

Tutorial presentations

Over tutorial sessions 3-11, each student is expected to make three presentations – a presentation for one of sessions 3-5, for one of sessions 6-8, and for one of sessions 9-11. Selection/assignment of sessions for presentations will be done in the first tutorial (session 1). See the readings lists and questions for each session in the separate document containing the details about the sessions, readings and questions.

One purpose of the presentations, beyond encouraging individual reading and thinking about the course material, is to facilitate sharing of understanding from the lecture and from readings beyond those that the participants are likely to read through themselves.

Each presentation is to respond to the relevant session question (or at least one of the session questions when the session has two or more questions) using key insights from two or more selected readings and from the session lecture. The presentation should summarize the key relevant points from the selected readings, and address the implications of these points in answering the session question(s).

In all cases, the presentation is to be from the perspective of an advocate for the interests of future generations.

A presentation is to take no more than three minutes. That is equivalent to about 500 words, unless you are a professional auctioneer. The presentation notes are to be submitted to the relevant course dropbox by midnight on the Friday of the session week, and must be accompanied by proper references to the readings, lecture material and other sources used. Please limit the submitted notes to 500 words; references are not included.

Each presentation is graded out of 5%, for a total of 15% for all three. Grading will consider both the oral presentation and the written notes. Early feedback will be given on each participant's first presentation.

Evaluation of the presentations will take the following criteria into account:

- clear and logically structured response to the relevant session question (or at least one of the session questions when the session has two or more questions);
- evident familiarity with the selected readings (at least two) and the relevant lecture material (accurate reporting and plausible interpretation);
- understanding of the broad concepts and issues involved and insight into their implications;
- synthesis, integration and drawing connections between and among the immediate subject matter and the broader ideas, issues and insights from the course materials or elsewhere; and
- communication skills (clear, articulate, easy to hear and understand, etc.).

There will be bonus marks for humour.

The presenters' engagement in tutorial discussion after the presentations will be included in the grading of participative engagement in the course.

The three reports

The main purpose of the reports assignments is to encourage thoughtful reflection on the lectures, readings and tutorial discussions and their implications for understanding the past and for identifying implications for sustainability efforts now and in the future.

Three reports are assigned – one for each of the main sections of the course.

General guidance applying to the three reports

In the reports, as in the tutorial discussions, you are an advocate representing the interests of future generations. You can think of that as the generation who could be in ERS 301 in 2071 and the communities and biosphere upon which they will depend. The idea is to explore the implications of what we can learn from the past for what we should (and should not) do now to enhance prospects for the wellbeing of that generation and the generations to follow.

The reports are to address the three big questions about lasting wellbeing, complexity and change set out near the beginning of the syllabus:

- What ways of thinking and living would provide the foundations for lasting wellbeing (address current realities, respect the capacities of the biosphere, match human capacities and aspirations, and learn from past mistakes)?
- How can we deal with the enormous complexity of living on Earth in a way that will help us achieve and maintain lasting wellbeing?
- How can we best push the big transformative and restorative changes needed to move towards more sustainable ways of living?

Further elaboration of those three questions is provided on page 2 of the syllabus. You can take that material as useful background guidance for the reports. Detailed guidance on expectations for the substance of each report is provided below.

For all three reports, you have options for form and style as well as substance. The following general rules about form and style apply.

1. Pick a reporting form from the options below. While your reports can be in the form of a conventional academic essay, many other options are acceptable, and may be more professionally useful and/or fun than a conventional essay. Your reports can be in any of the following forms:

- a conventional academic essay,
- briefing paper for a major institution (e.g., a government body at any level, the board of a farsighted private corporation or sustainability-oriented civil society organization),
- a feature article in a reputable on-line or print publication,
- a detailed blog or series of linked blogs prepared for a reputable organization (e.g., a university research institute focused on sustainable futures),
- a pitch for or transcript of a documentary video/film (with some indication of the accompanying visuals),
- the text of a public address to the United Nations General Assembly,
- others with the permission of the instructor or a TA.

You may use different formats for reports 1, 2 and 3.

2. In whatever form you choose, each report is an exercise in professional writing and scholarly rigour. Adhere to the conventions of grammar. Ensure that your readers will understand the logic leading to your conclusions and know there is reliable backing evidence (including as evidenced by proper supporting references). Feel free to incorporate illustrative examples. You are being asked to address very big issues and cover very long periods and huge diversities of particular issues, experiences, understandings and explanations in short reports. You must focus on the high points, but your audience must be able to understand the practical significance of the points you make.

3. Write as an advocate for future generations, but also a rigorous scholar. Recognize different perspectives. Present the most reliable information available, noting disputes and uncertainties. Weigh evidence and draw conclusions, but also recognize competing evidence and other possible conclusions. The reports are, at least implicitly, making a reasoned argument based on carefully assessed evidence and sound logic.

4. Draw from the readings and lectures. Use of other relevant scholarly material is fine. Using material from your own presentation notes is entirely acceptable. You can draw also from your tutorial colleagues' presentations (see the tutorial group contributions assignment below), though it is wise to check to ensure those materials are reliable. As a general rule, you should demonstrate familiarity with, and provide proper references to, at least two substantial readings from the each of the sessions covered in the reports.

5. Provide proper bibliographic references to readings, lectures and other sources you've used, applying a recognized referencing style. For some of the format options, footnotes

may work better than in-text citations and a references list. For bibliographic referencing style guides see <https://lib.uwaterloo.ca/web/dictionaries-encyclopedia-and-more/citation-style-guides>.

6. Recall or re-familiarize yourself with the rules against plagiarism and the penalties for offences. See the note on academic offences, below.

7. Be concise. These are short reports, especially the first one. Given that the course is covering a sizable chunk of the human experience, you cannot discuss everything. In choosing what to include in the reports, give particular attention to what you consider to be most significant, surprising and illuminating for building possible answers to the big questions set out at the beginning of this syllabus.

8. All written assignments are to be submitted to the appropriate ERS 301 course website dropbox by 11:59 pm on the deadline date. In the interests of equity, penalties will be assessed for late submission of written assignments. Except in cases of documented illness or other extraordinary inability, the grade given for a written submission will be reduced by .5 for each day late (e.g., a paper assigned 15/20 if received on time will get 14.5/20 if one day late) for the first three days late. Submission more than three days late will be subject to lower but continuing reductions.

9. Ensure that your name is on the submission (a separate title page is not necessary).

As is the case with all writing assignments, participants are expected to be familiar with the rules against plagiarism and aware of the penalties for offences. See the notes on academic offences, below.

Reports grading rubric

The grading of each report will be based primarily on evidence of

- attention to the purposes and particulars of the report assignment (see above and below) and familiarity with (or mastery of) the concepts and sources, ideas and implications covered by the course, including in the lectures and associate discussions, tutorial sessions and readings (though additional discussion of other relevant books or articles, from other sources, is welcome) (40%);
- coherence (or brilliance) of building an integrated and well-reasoned argument, including insightful understanding, logical flow, emphasis on most significant points, effective use of evidence (with appreciation of its limitations), integration of ideas and attention to implications (40%); and
- clarity (or elegance) of writing, taking into consideration the structure and organization of thoughts and argument, effective linking of broad ideas to special illustrations or examples, proper grammar and syntax, concise presentation, ease of understanding, and appropriate credit to sources (20%).

In the second and third reports, we will expect increasing concentration on identifying connections or conflicts among the ideas considered.

Finally, and despite the usual stuffiness of professional and scholarly writing, in this course there are bonus points for wit and humour.

The reports assignment details: three reports from the advocate for future generations

First report

Your first report covers weeks 1-3, “beginnings,” in the context of wondering about how to ensure lasting wellbeing for future generations.

The core question: What lessons can be drawn from the nature, successes and failures of human societies from the dawn of the species to the times when the elites of some human societies began to be influenced by modern ideas of science, economics, progress, etc. (late 1400s in parts of Europe, later elsewhere)? In particular, what lessons would be useful for defining and advocating for the interests of future generations? Mostly those will be lessons from the diversity of human experience about what people (and human cultures and societies) are evidently capable of understanding and doing, what seems necessary for a desirable and fulfilling life (and what is evidently oppressive and inhumane), what we may learn from mistakes as well as achievements in the periods covered and what capacities we need to develop and/or strengthen.

Using any of the optional forms suggested above, your report should

(i) address the major different approaches to making a living and getting along with each other and the rest of the environment adopted by various examples of hunter-gatherer-forager cultures and the range of farming cultures, including small scale farming and the initial large agriculturally-based civilizations;

(ii) in each case, consider

- the basic nature of what the societies did for a living (foraging, farming, etc.);
- the way they organized their lives and actions through institutions of various kinds (entrenched habits and customs, social and economic structures, established ways of making collective decisions, ways of treating the non-human world, etc.);
- how they dealt with uncertainty and phenomena they could not control; and
- their underlying beliefs and understandings, including what changed and did not change in the shifts you have described;

(iii) how and why which each of these human ways of thinking and did or did not contribute to sustainability (arrangements and practices that are practically viable and desirable socially, economically and ecologically for the long term); and

(iv) what lessons we can draw for advocacy of efforts now to enhance prospects for sustainability for future generations.

Requirements: For the scholarly purposes of this course, you must provide suitable supporting references to the readings, lecture material and other sources. You may choose to use footnotes to the report for this purpose. The report can be a maximum of 1250 words (not including references). The submission is due in the relevant dropbox on the course Learn site before midnight on Wednesday, October 6.

Second report (weeks 4-7, “into the modern world”)

Your second report covers weeks 4-7, “into the modern world,” again in the context of how to ensure lasting wellbeing for future generations.

The core question: As an advocate for the interests of future generations, what do you find to be the main strengths and limitations of the new ideas and practices represented by modern science and economics (individually and as a combination) and, for the purposes of guiding efforts to move towards sustainability for future generations, should we embrace the basic ideas of modern science and economics, or reject them, or assemble some hybrid package of pre-modern, modern and maybe post-modern ideas?

Considerations that you may wish to take into account include the following:

- The key ideas underlying modern science, modern economics and the combination in modern industrial society are about the basic character of, and possibilities for, human beings, nature and knowledge.
- These ideas are in important ways profoundly different from the ideas that prevailed before the rise of modern views. Some of the strengths and limitations of the new ideas may be revealed by how they compare with the basic ideas that had prevailed before.
- Some of the stories of the rise of modern science and economic ideas and applications suggest that it was all a more or less inevitable process of gaining more understanding about the world and how to control it. Other accounts point to an erratic and minimally logical process of change involving a host of coincidental factors, questionable as well as sensible assumptions, and mixed results.
- Modern science and modern economics proved to be very powerful, but never entirely displaced earlier ideas and practices. The result was a mix of old ideas and new ones. That is evident, for example, in the history of conquest.

Your report can be prepared using any of the optional forms suggested above. The discussion should address

- (i) the most fundamental modern ideas and practices in science, economics and the combination and their influence;
- (ii) contrasts between pre-modern ideas and practices;
- (iii) the history of conquest considering the influence and effects of both pre-modern and modern ideas and practices;
- (iv) lessons about the strengths and limitations of modern ideas and practices; and
- (v) implications for the ideas and practices needed to guide progress towards sustainability for future generations.

Requirements: Again, provide suitable supporting references to the readings, lecture material and other sources, using footnotes if the in-text citations option is not suitable. The report, in whatever form, can be a maximum 1600 words (not including references). It is due in the relevant dropbox on the course Learn site before midnight on Wednesday, November 10.

Final report

Your final report is to focus on weeks 8-12, "criticisms and possibilities," but cover the whole course.

The question: As an advocate for the interests of future generations, what do you find to be the key lessons we can take from the human record so far to help us to build a generally more durable, just and agreeable future in a complex world?

Your report can be prepared using any of the optional forms suggested above, but one way or another you ought to address the following:

(i) What basic ideas or combinations of ideas about humans, the environment and proper relations seems to prevail more or less globally today (recognizing major regional and individual differences) and to what extent do they reflect the ideas and practices of traditional societies (based on hunting-gathering-foraging or on agriculture), the ideas and practices modern science and economics, the critiques that have arisen over the past 250 years, or other influences?

(ii) Given current unsustainable practices and trajectories and your role as an advocate for future generations, what is your reasoned position on the basic ideas or combinations of ideas about humans, the environment and proper relations between them that should be adopted individually, locally and/or globally in the coming years? In other words, in your role as an advocate for future generations, and recognizing the global variety of contexts and the advantages of diversity, what essential characteristics of societies and cultures would you recommend as broadly desirable and at least potentially viable over the longer run?

(iii) To what extent would moving towards societies and cultures with these essential, desirable and viable social and cultural characteristics entail adopting some versions or aspects of ideas from the traditional and/or modern packages, and/or the historical and more recent critics?

(iv) How firm are the historical and other grounds for the position you have set out? In other words, how confident are you that your position is sound?

(v) To what extent would moving towards societies and cultures with these characteristics entail fundamental changes to assumptions and attitudes that prevail today (e.g., about what is fulfilling for human beings and how nature should be understood and treated) as well as fundamental changes to how we organize our lives, social structures and activities (e.g., livelihoods, production and consumption, and distribution of power and decision making)?

(vi) Insofar as significant changes are needed, how might they be encouraged most effectively? In particular, what, if anything, can we learn from how big changes happened in the past?

(vii) In light of the position you have taken, what one big practical initiative or accomplishment in your own personal area(s) of expertise and commitment, would you advocate and contribute to over the next 50 years to make life better for future generations?

Requirements: Again, your report must include suitable supporting references to the readings, lecture material and other sources, using footnotes or in-text citations. The report can be a maximum of 2000 words (not including references). It is due in the relevant dropbox on the course Learn site before midnight on Monday, December 13.

Evaluation summary

Participation 1	10% (sessions 1-6)
Participation 2	10% (sessions 7-11)
Tutorial presentation and notes	5% (first presentation, session 3, 4 or 5)
Tutorial presentation and notes	5% (second presentation, sessions 6, 7 or 8)
Tutorial presentation and notes	5% (third presentation, sessions 9, 10 or 11)

Report 1	15% (sessions 1-3, due October 6)
Report 2	20% (esp. sessions 4-7, due November 10)
Report 3	30% (esp. sessions 8-12, due December 13)

The course schedule [for details see separate document – 301f21 sessions, readings and questions]

Part 1: Origins, traditions and initial foundations

Session 1. Week of Sept 13

Introduction: sustainability and the history of ideas and practices – different views of the world, different ways of living in nature and society, and different routes to sustainability

Session 2. Week of Sept 20

Foundations: the long record of hunting and gathering, the eventual shift to agriculture and the contrast between traditional and modern societies

Session 3. Week of Sept 27

New understandings: philosophy, religion and the roots of the Western tradition

Part 2: The slow and peculiar rise of modern ideas

Session 4. Week of Oct 4

The rise of modern science: nature as knowable and manipulable

Reading week Oct 9-17

Session 5. Week of Oct 18

The rise of modern economics: markets, individuals and a world of commodities

Session 6. Week of Oct 25

Industrial society and modernity: the union of modern science and economics and a new image of humans and nature

Session 7. Week of Nov 1

Domination and other approaches to the natural environment and other people: conquest, exploitation, imposition and more positive themes in human history

Part 3: From the modern world towards a sustainable one

Session 8. Week of Nov 8

Advocates and critics: contrasting liberal, conservative, feminist, socialist, romantic and other responses to modern industrial society

Session 9. Week of Nov 15

Progress and its discontents: reason, technology and doubts in the twentieth century

Session 10. Week of Nov 22

Greens: the first century of environmental critique and response

Session 11. Week of Nov 29

Sustainability: the integration of environment and development under conditions of complexity

Session 12. Week of Dec 6

Lessons: implications of the historical and cultural roots of our current situation and our possibilities for change towards sustainability

Important UW policies and services on key course-related topics

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. *Help is available.* Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services is an inclusive, non-judgmental, and confidential space for anyone to seek support (<http://www.uwaterloo.ca/counselling-services>). They offer confidential counselling for a variety of areas including anxiety, stress management, depression, grief, substance use, sexuality, relationship issues, and much more.

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.

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. See <http://www.uwaterloo.ca/academicintegrity/>.

Every student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his or her actions. Please review the material provided by the university's Academic Integrity office specifically for students: <https://uwaterloo.ca/academic-integrity/>. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating), should visit the on-line tutorial at <https://uwaterloo.ca/library/get-assignment-and-research-help/academic-integrity/academic-integrity-tutorial>, and seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean.

For information on categories of offences and types of penalties, students should refer to [Policy 71, Student Discipline](#). For typical penalties, check [Guidelines for the Assessment of Penalties](#). Within the Faculty of Environment, those committing academic offences (e.g. cheating, plagiarism) will be placed on disciplinary probation and will be subject to penalties that may include a grade of 0 on affected course elements, 0 on the course, suspension, and expulsion.

Grievances: A student who believes that a decision affecting some aspect of their university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70, Student Petitions and Grievances, Section 4](#). When in doubt, please be certain to contact the department's administrative assistant who will provide further assistance.

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 they have a ground for an appeal should refer to [Policy 72, Student Appeals](#).

Religious observances: A student needs 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.

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. Students who email the instructor or TA from a personal account will be requested to resend the email using their personal University of Waterloo email accounts.

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); 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).

Recording: The lecture sessions, and likely the on-line tutorials, are to be recorded using the Learn Virtual Classroom or an equivalent platform to ensure adequate accessibility to students participating on-line. On-line students who do not wish to be seen on camera may keep their webcams off.

Use of private recording devices during lectures is only allowed with explicit permission of the instructor of the course. Only audio recordings will be permitted. 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.