SUSM 602 – Theories and Concepts of Sustainability Management

Course instructor: Olaf Weber, EV3-4233, phone: 38065, email: oweber@uwaterloo.ca

Meetings
Lectures on Mondays 2:30 to 5:20 pm in RCH 205

Office hours:
By e-mail appointment.

Delivery of course material:
1. Material for this course will be delivered by the D2L system. Go to https://learn.uwaterloo.ca/
2. The course outline is available on the course website (through the D2L system).
3. We strongly encourage note taking during the lectures. Because of intellectual property and copyright issues, we cannot guarantee that all presentation material will be uploaded on the course website. We will also use the D2L system to deliver information to students in the course. We expect (assume) that you will be checking the course website regularly (at least every working day).

Tips for success:
1. Attend all sessions.
2. Come prepared for all sessions, and follow up on all sessions.
3. Plan ahead: check when assignments are due, tests and examinations are scheduled.

Creating an effective learning environment in class:
1. We will start ‘on time’, so please arrive on time. If you arrive late, then please enter by the back door.
2. We will get you out of the classroom in good time – please wait until we dismiss the class to prepare for your departure.
   a. Please do not disturb your classmates’ abilities to learn.
   b. Please turn off cellphones, etc.
3. If you use your laptop during lectures, then please turn the volume off, please do not surf to distracting (e.g. image-intensive) sites and please type quietly.
4. It is expected that students have read at least the core readings before class, because they will be the basis of the classes.
5. Our time together is valuable. We will, however, work to make the lectures informative, relevant and interesting. Throughout term, we will welcome suggestions as to how the learning environment can be improved.

**Pre-requisite:**
Tuition fees arranged. Be aware that you do not have access to the course website without having arranged your tuition fees.

**Calendar description:**
‘Foundations of Sustainability Management’ introduces background, theoretical concepts and applications of sustainability, management, and tools for sustainability management.

**Course description:**
In this course theories and concepts such as international sources of sustainability concepts, basic environmental and ecological economics, social and environmental justice, sustainable management and finance, uncertainty, complexity, risk and decision making in sustainability management, etc. will be introduced and discussed. The course is structured in three components ‘Sustainability Theories and Background’, ‘Management’, and ‘Sustainability Management Tools’. The goal of the course is to achieve a systematic understanding of knowledge and a critical awareness of current problems and new insights of sustainability management, much of which is at the forefront of the interdisciplinary academic research, and will be needed to conduct research in the interdisciplinary field of sustainability management. Students will learn to understand and to use academic papers as basis for their own research.

**Course Website:**
Course information will be delivered through the D2L system (https://learn.uwaterloo.ca).
Course assessment:

Participation (20%): The course has a strong focus on active participation. It is expected that the students read the readings in advance and will be able to actively contribute to in-class discussions. Participation is not a case of ‘more is better’. Instead, you should strive to make occasional contributions that reveal your ‘engagement’ with the course material. This may be indicated by comments that make new connections among different parts of the material for the course (that is, the readings, the lectures, the discussions, etc.), comments that challenge or support positions in readings and/or lectures, comments that link other experiences to material in the course, comments that relate external, world events to material in the course, comments that respond to questions posed in discussions in an informed manner, etc. You are asked to read and think about all of the assigned readings before each meeting; review of ideas and information presented in the corresponding lecture(s) is also required. Do bring your own ideas, arguments and reflections to the class – the quality of these meetings will depend upon students’ preparation.

Topic Presentation (Total 20%: 10 % presentation and discussion, 10 % research paper): Students will present the course topic and its connection to Sustainability Management. The presentation should include and introduction to the topic and a critical discussion based on the readings. The presentation will be 50 minutes including discussion. Feel free to select any kind of method to discuss the topics and their connection to Sustainability Management in an interactive way. Presentation groups will be set by the course instructor and can be found on the course website. Furthermore, each student submits a two pages paper individually. The two pages research paper should describe the topic, the background literature, conclusions and the topic's relevance for sustainability management.

Group Presentation (Total 15 %: 10% Presentation, 5% Group Evaluation): Pick one of the theories and concepts that you think is a useful approach to address sustainability problems. Present the theory or concept, and your justification in a 20 minutes presentation (including questions and discussion) using presentation software such as PowerPoint, or Prezi. Presentation groups will be set by the course instructor and can be found on the course website.

Final Presentation (20 %): Each student will present a proposal for a research project addressing a sustainability management issue. The presentation includes background, rationale, theory, research question(s) and expected results (not methods). Arguments should be supported by academic references with about 50 percent being academic literature.

Discussant for final presentation (5%): Each student will be a discussant for on the final presentation. The student should read the presentation abstract, follow the presentation, present one comment to the presentation and ask one question.

Final Assignment (20%): Present a proposal for a research project addressing a sustainability management issue. The presentation includes background, rationale, theory, research question(s) and expected results. Arguments should be supported by academic references.

Summary of ‘due dates’:

- **Topic presentations**: Due dates for the respective topic presentations are listed on the course website
• **Group presentation:** Power Point File of the presentation due October 21, 11:59 pm in the dropbox. Oral presentation due on October 22 between 2:30 and 5:20 pm.

• **Final presentation:** A one page abstract and title of the presentation as well as the PowerPoint file of the presentation due on November 23, 11:59 pm (uploaded to the dropbox).

• **Oral presentations:** On November 26 or December 3 (see the course website for specific dates).

• **Final paper:** Due on December 7, 11:59 pm.

**Academic Integrity:** To maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. [http://www.uwaterloo.ca/academicintegrity/](http://www.uwaterloo.ca/academicintegrity/). Students who are unsure what constitutes an academic offence are requested to visit the on-line tutorial at: [http://www.lib.uwaterloo.ca/ait/](http://www.lib.uwaterloo.ca/ait/)

**Research Ethics:** Please also note that the ‘University of Waterloo requires all research conducted by its students, staff, and faculty which involves humans as participants to undergo prior ethics review and clearance through the Director, Office of Human Research and Animal Care (Office). The ethics review and clearance processes are intended to ensure that projects comply with the Office’s Guidelines for Research with Human Participants (Guidelines) as well as those of provincial and federal agencies, and that the safety, rights and welfare of participants are adequately protected. The Guidelines inform researchers about ethical issues and procedures which are of concern when conducting research with humans (e.g. confidentiality, risks and benefits, informed consent process, etc.)’ ([http://www.research.uwaterloo.ca/ethics/human/](http://www.research.uwaterloo.ca/ethics/human/)). Recognise, however, that students are instructed NOT to contact any ‘outside organisations’ to complete their written assignments for this course.

**Note for students with disabilities:** The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.

**Religious Observances:** Please inform the instructor at the beginning of term if special accommodation needs to be made for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.
**Grievance:** A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4, http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm. When in doubt, please contact your Undergraduate Advisor for details.

**Discipline:** A student is expected to know what constitutes academic integrity, to avoid committing academic offence, 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 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, http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm. For typical penalties, check Guidelines for Assessment of Penalties, http://www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm

**Appeals:** A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 – (Student Discipline) may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72 (Student Appeals). See: http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm

**Consequences of Academic Offences:** ENV students are strongly encouraged to review the material provided by the university’s Academic Integrity office (see: http://uwaterloo.ca/academicintegrity/Students/index.html).

**Course readings:**

All readings can be acquired and downloaded through the library, through the course website, or are available in the internet. Please become familiar with the use of University of Waterloo’s library.
Course overview: Theories of Sustainability (Units 1-6), Sustainability Management (Units 7-8), Tools for Sustainability Management (Units 9-10)

Readings to be presented by students are marked with “*”
Additional readings are proposals for those who are interested in learning more about a particular topic.

Part 1: Theories of Sustainability (Units 1-6)

Unit 1: September 10

Lecture Content

- Introduction to the course
- Introduction to the course content
- Introduction to the course method
- Introduction to the assignments
- Introduction into academic publishing
- Preparation of exercise for September 15: Which sustainability problem are you most interested in? Prepare to describe the problem and why you think it is important to find a solution for it.

Course instructor(s)

Olaf Weber

Unit 2: September 17

Lecture Content

- Theoretical concepts of sustainability and sustainable development: General approaches, The Brundtland Definition of Sustainable Development and its operationalization, and strong and weak sustainability
- Sustainable Development Goals (SDG)
- Discussion of sustainability problems

Course instructor(s)

Olaf Weber, Julia Seirlis (confirmed)

Discussion

- Based on your sustainability case:
  - What is to be sustained?
  - What is to be developed?
  - For how long (What is the time frame?)
• What is the relation between the sustainability concept and business?
• What are benefits and problems arising from the use of the concept in a business context?
• What are strengths and weaknesses of weak and strong sustainability?
• Discuss the values for the countries’ sustainability indicators.
• Is it possible for business to take all three issues equally into account?
• What is the main goal of business and how is it linked with sustainable development?
• What are the SDGs about?

Core Readings

Additional Readings


**Unit 3: September 24**

**Lecture Content**
- Theoretical concepts of sustainability and sustainable development: Economic Approaches, Ecological Economy vs. Environmental Economics, material flows and social metabolism
- Municipal sustainability planning

**Course instructor(s)**
Olaf Weber, Amelia Clarke (confirmed)

**Discussion**
- Discuss advantages and drawbacks of environmental economics and ecological economics. Justify why one of the concepts is better able to solve sustainability problems than the other.
- What changes are needed to create a sustainable future? Are changes needed? Justify, using arguments from the readings.

**Core Readings:**
**Additional Readings:**


TEEB (2010). *The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB.* (for a link see course website “Downloadable Content”)

UNEP (2011). Introduction. Setting the Stage for a Green Economy Transition. (for a link see course website “Downloadable Content”)


**Unit 4: October 1**

**Lecture Content**

- Theoretical concepts of sustainability and sustainable development: Resilience, adaptation. Social approaches

**Course instructor(s)**

Olaf Weber, Simron Singh (confirmed)
Core Readings

Additional Readings:

Useful Links
Resilience Alliance: http://www.resalliance.org/
In this unit, we will show a documentary: The Economics of Happiness (film trailer at: http://www.theeconomicsofhappiness.org)

- Social Progress Index
  - (for a link see course website “Downloadable Content”)
- Human Development Index (HDI)
  - (for a link see course website “Downloadable Content”)
- Gross National Happiness (GNH)
  - (for a link see course website “Downloadable Content”)
- Maryland’s Genuine Progress Indicator (GPI)
  - (for a link see course website “Downloadable Content”)
- OECD’s Better Life Index
  - (for a link see course website “Downloadable Content”)
- Happy Planet Index
  - (for a link see course website “Downloadable Content”)
- The Happiness Initiative
  - (for a link see course website “Downloadable Content”)
Unit 5: October 15

Lecture Content

- Theoretical concepts of sustainability and sustainable development: The intra-generational approach, north-south relations and international development, base of the pyramid approach, business approaches to sustainable development.

Discussion

- How to solve the problem of the north-south difference in a sustainable way?
- Sustainable business in China
- Create a proposal for a BOP business.
- Based on the readings prepare to discuss the question: Is BOP business an effective tool to alleviate poverty?
- How do environmental and development issues interact?

Course instructor(s)
Olaf Weber, Goretty Dias

Core Readings:

Additional Readings:
Unit 6: October 22

Lecture Content: Student group presentations

- In groups, pick one of the academic approaches that you think is useful to address sustainability problems. See the course website for the presentation groups.

Course instructor(s)

Olaf Weber

Part 2: Sustainability Management (Units 7 – 8)

Unit 7: October 29

Lecture Content:

- Management: Introduction, the management process (planning, organizing, motivating, controlling supply chain management)
- Management: business management approaches and theories
- Social enterprise and social innovation

Course instructor(s)

Olaf Weber, Sean Geobey (confirmed)

Discussion

- With whom or with what does a business or organization interact while doing business?
- What do managers have to consider, if they want to manage a business or an organization successfully?
- Use institutional theory to explain, why a firm implements a sustainability strategy using the regulative, normative, and cognitive pillar respectively
- Which resources are needed for a Firm to be Sustainable?
- Discussion: A firm that produces products or services that have a negative impact on the environment (oil) or on the society (weapons) cannot be a leader in Corporate Social Responsibility!

Core Readings

Additional Readings:

http://www.istheory.yorku.ca/stakeholdertheory.htm

*Journal of Business Ethics, 34*(1), 57-73. doi: 10.1023/a:1011957832141

9134.2009.00210.x


**Unit 8: November 5**

**Lecture Content**
- Sustainable finance

**Course instructor(s)**
Olaf Weber, Blair Feltmate (confirmed)

**Core Readings**

**Additional Readings**


**Part 3: Tools for Sustainability Management (Units 9 - 10)**

**Unit 9: November 12**

**Lecture content**

- Corporate sustainability accounting and reporting
- Management systems

**Course instructor(s):**

Olaf Weber, Marie-Claire Cordonier Segger (confirmed)
Core Readings

Additional Readings
Sanscartier, D., Deen, B., Dias, G., MacLean, H. L., Dadfar, H., McDonald, I., & Kludze, H. (2013). Implications of land class and environmental factors on life cycle GHG emissions of Miscanthus as a bioenergy feedstock. *GCB Bioenergy (see course website for document).*

GCB Bioenergy


### Unit 10: November 19

**Lecture Content**
- Tools: Impact Assessment,
- Scenario Analysis

**Course instructor(s)**
Olaf Weber

**Discussion**
- What are problems of impact assessment?
- Discussion: “Impact assessment should focus on the things that count, not the things that can be counted!”
- What is the benefit of Scenario Analysis

**Core Readings**

**Additional Readings**


http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability/publications/publications_handbook_pps


**Unit 11: November 26**

**Lecture Content**

- Student Presentations

**Unit 12: December 3**

**Lecture Content**

- Student Presentations