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# ENST 391.50: Sustainability - The Challenge of Change

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**ENST 391.50 Sustainability: The Challenge of Change**  
**Spring 2013 Semester**  
**SYLLABUS**

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Meetings can be arranged on the UM campus by emailing or calling the instructor

This course was originally designed and taught by Dr. George Seielstad. The course Dr. Seielstad offered has been modified and is being facilitated by Eva Rocke for the spring 2013 semester. A lecture Dr. Seielstad presented to students in Summer 2011 can be a preview to the course and an introduction to the course's original instructor. If interested (it's optional), see <http://www.nserc.und.edu/learning/SARPmm.html?2011>. Scroll down the list of lectures to 6/22/2011, 10:00 AM. Click there and start.

**Course Description**

This course will consider the onset of a new geologic era, the *Anthropocene*, so-named because it is an era during which humans are the dominant force on the planet. Our domination arose quickly as a consequence of humankind's explosive growth of knowledge and its application to increasingly powerful technologies. The ascendance has been dramatic and largely unquestioned, making the impacts of our collective actions all the more critical. Change is essential. This change must be transformative, not merely incremental. The class will consider how to initiate such needed dramatic change. The course will explore challenges without treating them as inherent "problems." Instead, the emphasis will be on opportunity and connecting students to the current efforts being made in communities around the country to inspire change. A different world need not be a worse world; the challenge is to make it a better one.

After reviewing the concept of Spaceship Earth, the course will describe impacts that are occurring throughout Earth's interconnected systems. Students will identify and articulate their positions on some major decisions and issues confronting us all. In doing so, students will weigh ecological, economic, and equity dimensions. Students will learn the importance of communicating the need for change as a means to influence human behavior.

**Purpose**

The purpose of the course is to nurture values and inspire action that will help transition humankind from the practices it established in the last century to sustainable practices in the current century. Approximately the first half of the course will be devoted to studying the past. Doing so should expose the unsustainability of civilization's present course. The intent is not to sow pessimism. Rather, it is to learn together what we can do to find a path to a sustainable future. The second half of the course offers students an opportunity to explore current approaches to sustainability via current events, academic resources, and their own research.

**Objectives**

Students who successfully complete this course will:

- Possess a deeper and more complex understanding of sustainability, the roots of the term, and its application to institutional settings

- Appreciate the values of services the natural and physical worlds provide to humans and the impact humans have on the natural and physical worlds' ability to continue providing them.
- Appreciate the temporal and spatial scales of change, including consequences of exponential growth
- Develop communications skills – verbal, written, and electronic – enabling understanding across disciplines, sectors, and generations.
- Find information, evaluate its accuracy, and transform it into practical uses.
- Understand that humanity's current predicament is an opportunity for greatness rather than a cause of despair.

### **Required Online Tools**

- Access to a personal computer with audio capabilities
- Internet access and a web browser
- Microsoft Word and PowerPoint (PowerPoint slides that contain speaker symbols contain recorded messages. Click on symbol to hear them.)
- Ability to open pdf, jpg, and video files

I advise visiting [umonline.umt.edu](http://umonline.umt.edu) and studying the **Student Resources**. You will also see a location for **Tech Support**.

### **Required Textbooks**

McNeill, J.R. 2001. **Something New under the Sun: An Environmental History of the Twentieth-Century World**, New York: W.W. Norton & Company paperback, ISBN 03-393-04917-5.

Lambin, Eric. 2007. (translated by M.B. DeBevoise) **The Middle Path: Avoiding Environmental Catastrophe**, Chicago: The University of Chicago Press, ISBN 978-0-226-46853-2.

Berry, Thomas. 2000. **The Great Work: Our Way into the Future**. New York: Broadway Publishers. ISBN 978-0609804995.

None of the books listed above have been ordered through the UM bookstore. All are available online. In order to give you time to seek out these texts (sometimes it takes awhile to receive them if you're ordering them online), I have provided the first week and a half's worth of the McNeill chapters in PDF for you to read.

### **Additional Materials**

The *Resources* folder in the Course Menu contains several useful documents.

- **Book References** contains short reviews by Dr. Seielstad of several books relevant to the course. Included, of course, are those by McNeill and Lambin. The other listed books are optional and are provided with the hope that students will be self-motivated to read more than just the required materials.
- **Quotes** are provided because a few sentences by critical thinkers often capture the essence of important ideas.
- **Websites** presents an incomplete list of sites useful to the topic of sustainability.
- Papers in journals or magazines, both required and optional, will be assigned or referred to throughout the course.
- The Moodle site for the course has a location for *Announcements*. Information will be posted there throughout the course.

New relevant information appears frequently. The instructor will e-mail notices to the entire class.

## Course Schedule

WEEK	TOPIC	READING	POWER POINT	QUIZ	ASSIGNED WRITING? <sup>1</sup>	ASSIGNED DISCUSSION <sup>1</sup>
Jan 28-Feb 3	Space-Time Orientation & Exponential Growth	McNeill Ch 1, 12, 9	Y	Y (syllabus quiz, 10 pts)	N	Y (personal profile, 10 pts)
Feb 3- Feb 10	Lithosphere, Pedosphere, Atmosphere	McNeill Ch 2-4	Y	Y (on rdgs, 10 pts)	N	N
Feb 11-17	Hydrosphere	McNeill Ch 5, 6	Y	Y (on rdgs, 10 pts)	N	N
Feb 18-24	Biosphere	McNeill Ch 7, 8	Y	Y (rdgs, 10 pts)	N	Y
Feb 25-Mar 3	Anthrosphere, Ideas & Politics	McNeill Ch 10, 11	TBD	N	Y (50 pts)	Y
Mar 4-10	Systems	Lambin Intro, Ch. 1	TBD	N	N	Y
Mar 11-17	Energy	Lambin Ch, 2, 4	TBD	N	N	N
Mar 18-24	Geoengineering	Lambin Ch. 5	TBD	N	Y (Reflection #1)	Y
Mar 25-31	Morals, Ethics, Solutions	Lambin Ch 6, 7	TBD	N	Y (50 pts)	Y
Apr 1- Apr 7	TBD	Berry Ch TBD	TBD	N	Y (Peer edits to paper #2, 25 pts)	N
Apr 8- Apr 14	<b>SPRING</b>	<b>BREAK</b>				
Apr 15- 21	Solutions	Berry Ch. TBD	TBD	N	N	N
Apr 22-28	Solutions	Berry Ch. TBD	TBD	N	N	Y
Apr 29- May 5	Solutions	Berry Ch. TBD	N	N	Y (Reflection #2)	Y
May 6- May 12	Solutions	TBD	N	N	N	Y
May 13- May 19	<b>FINALS WEEK</b>	N	N	N	<b>Y Final Essay Due (75 pts)</b>	N

### Grading

Final course grades will be based on the following:

**Personal Profile** – 1 @ start of course = **10 pts**

**Discussion Forums** - 8 forums @ 10 points/wk (2-3 postings/week) = **80 pts**

#### **Writings Assignments**

**Essays** – 2 @ 50 pts each. = **100 pts**

**Peer Editing** – 2<sup>nd</sup> Essay comments and feedback = **25 pts**

**Reflections on out-of-class event/lectures** – 2 @ 20 pts each = **40 pts**

**Quizzes on syllabus, course readings, and materials** – 4 quizzes @ 10 pts each = **40 pts**

**Final Essay** - 75 points

**Total possible: 370 points**

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## Assignments

Assignments are posted in each week's topic, available when you click on the appropriate week on the Moodle site. They are also compiled in the *Assignments* Folder on the course Moodle site. Some will be reading assignments, either from the textbooks (schedule above) or from supplemental readings. Others assignments include websites or videos you might be asked to review or our discussion forums, in which you will need to participate 2-3 times per week.

You are also required to view and listen to PowerPoint presentations when they are posted within a week's postings. The course has essentially two halves. During the first, the focus is on the environmental and human histories of the twentieth century. For all of these, I have provided PowerPoint presentations. This initial material is a bit dry and, in my opinion, less conducive to discussion. This is why you will have quizzes for the first few weeks of the semester. The latter half of the course deals with changes needed in the twenty-first century. It is during the second half of the course that we will begin to write more (essays and reflections written about outside events you choose to attend w/ approval by the instructor) and engage in discussion more via our discussion forums. There will be few, if any, slideshows for you to view during the second half.

**Because course materials and info were passed on to me with only a few days before the start of classes, I will be posting an updated syllabus in the next few weeks. All assignments and readings through week 3 of the course are up to date and accurate. Please watch for a posting from me with updated assignments and information.**

**Assignments are due by 11:55 PM of the Sunday ending a week's work.**

- **Quizzes:** You will have an initial quiz on your syllabus to help ensure that you have at least skimmed it. The other 3 quizzes will be primarily about the reading material. All of the quizzes will be 5 questions long, short answer format, worth 10 points each. You are welcome to use any relevant material as you take the quiz. The point is that you do the reading!
- **Writing Assignments:** You will need to submit 2 essays (50 points each) over the course of the semester, timed to be written and submitted as we are finishing two of the books we read in the course. **Both essays need to be approximately 4 pages, double-spaced, 1" margins. This is about 1,000 words, which is what I will be looking for in regards to appropriate length.** I will share with you more specifics about the writing, the prompts, and expectations for those assignments when I post the assignments on our Moodle page. After everyone has submitted their 2<sup>nd</sup> essay, I will remove the names of the authors and re-distribute the essays to another student in the class for editing/comments. This is intended to help you improve your own writing by reflecting on another's work. This assignment will be worth 25 points.
- **Discussion Forms:** I much prefer discussion and seminar-format classes to lectures, so our discussion forums are important to me. You will be asked to engage in discussion for 9 forums over the course of the semester (see chart above). Please see the rubric that I've posted on our class page for clarification on how discussion postings are reviewed and graded. You need to post at least one of your comments early in the week (before Weds) and another during the second half of the week so that we avoid everyone posting on Sunday evening. This results in weak (and pointless) discussion. In total, this portion of your grade is worth 90 points.
- **Reflections:** In order to encourage learning outside class material, you are asked to attend 2 lectures, events, volunteer workdays, or other activities of your choice throughout the semester. You may be creative and seek out opportunities that interest you, but you must be able to clearly articulate how they relate to the course (sustainability in general, as well as something we're discussing specifically). You must get prior approval by the instructor before you will get credit for attendance. To prove that you participated/attended, you will need to submit a 2-page reflection for each activity/event. I will be



looking for evidence that convinces me you attended and that you're thinking critically about how the topic relates to this course.

- **Final Essay:** More on this later. It will be equivalent to our final exam and will be on a topic that ties together many of the concepts we've covered in the course. This will be worth 75 points and will be approximately 5-7 pages.

- **RUBRIC**

The world, if it is ever to become sustainable, is in desperate need of creative, new ideas. Without them, we continue on a path that passes an ever-deepening challenge to the next generation. Accordingly, the grading system for our discussion forums will emphasize this need. I will provide more specific expectations for your written assignments within the assignment summaries posted on Moodle.

Originality:	50%
Quality of Cited Evidence:	20%
Organization of Thought and Its Expression:	25%
Details (Grammar, Spelling, Punctuation, etc.):	5%

- **GRADE SCALING**

<b>A</b>	93-100%
<b>A-</b>	90-92%
<b>B+</b>	87-89%
<b>B</b>	83-86%
<b>B-</b>	80-82%
<b>C+</b>	77-79%
<b>C</b>	73-76%
<b>C-</b>	70-72%
<b>D</b>	60-69%
<b>F</b>	Less than 59%

### **Academic Integrity**

Academic misconduct is subject to academic penalty by both the instructor and/or disciplinary sanction by the University. These penalties and sanctions may include a failing grade for an assignment, removal from class, or more serious actions depending upon the nature of the misconduct. All students must be familiar with, and adhere to, the Student Conduct Code. The Code is available at [http://life.umt.edu/vpsa/student\\_conduct.php](http://life.umt.edu/vpsa/student_conduct.php).

### **Disability Statement**

If you have a disability for which accommodations are needed, please notify me in the first week of the semester. In addition, please contact:

Disability Services for Students (DSS)

Lommasson Center 154

(406) 243-2243 (Voice/Text)

(406) 243-5330 FAX

<http://life.umt.edu/dss/>

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