

NRES 200: Introduction to Sustainability Science
Course Syllabus
Spring Semester, 2019

Dr. Robin Rothfeder
Monday and Wednesday from 9:30 am - 10:45 am in TNR 271

Office: TNR Room 180

Office Hours: Tuesdays and Thursdays 10-11 am, or by appointment. I also have an open-door policy. If you stop by and my office is open, I will generally be available for a quick meeting.

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I. COURSE DESCRIPTION

This is the introductory course for the CNR's **Natural Resources Planning** major option and for the **Sustainable Energy** minor. We will critically examine *community* within the framework of sustainability science and community development and will explore the social, economic, institutional, and environmental dimensions of sustainability. Key concepts covered in the course include sustainable infrastructure and sustainable development; systems thinking, complexity, resilience, vulnerability, adaptive cycles, and transformations; and trans-disciplinary and collaborative approaches to planning, process, and problem solving.

A. TEACHING PHILOSOPHY AND APPROACH

My goal is to transform you into effective agents of change, capable of marshaling your collective knowledge, skills, and creativity to forge common ground and solve the sustainability challenges facing humanity. My teaching approach is to create a learning environment that is engaging, interactive, participatory, and hands-on. Every student will be responsible for a significant amount of the learning that takes place both inside and outside the classroom.

B. COURSE LEARNING OUTCOMES

I hold high expectations for all of my students. I expect to learn as much from you as you learn from me. I also expect you to teach and learn from your peers.

At the completion of this course, students will be able to critically evaluate the social, economic, institutional, and environmental dimensions of sustainability challenges facing communities and to formulate clear, effective solutions to those challenges. More specifically, students will be able to:

1. Answer individually and as a learning community "what sustains us?" and "what sustains our communities?"
2. Evaluate sustainability frameworks in terms of social/ethical, economic, institutional/policy, and environmental dimensions.
3. Use a systems approach to illustrate the ways in which these four dimensions interact in coupled social-ecological systems and how the relative importance of each dimension changes with context.
4. Analyze community plans and evaluate means of building more sustainable communities.
5. Assess the range of planning and policy careers and disciplines that are available.
6. Communicate your ideas formally and informally through speaking and writing.

II. COURSE DETAILS

A. LEARNING ENVIRONMENT

We will use class time for interactive lectures, discussions, field trips, quizzes, exams, peer review activities, and to complete course assignments. Our classroom will be an inclusive environment. We will have a great opportunity to learn from each other, and to appreciate and understand our differences through respectful exchange of ideas and opinions. Disrespect or disparagement will not be tolerated.

B. READINGS AND LECTURES

The required textbooks for this course are *Asset Building and Community Development* by Green and Haines, and *Sustainable World: Approaches to Analyzing and Resolving Wicked Problems* by Remington-Doucette. Other weekly readings will come from documents posted in CANVAS and from online sources linked in the course schedule (below). **The reading assignments are required and will form the basis for our in-class discussions. I expect you to be able to explain, interpret, apply, analyze, and evaluate the reading material.** Please note that I may amend required readings during the semester.

C. ASSIGNMENTS AND GRADING

1. Participation (250 points, 25% of grade)

Active participation is a crucial component of this course. Your participation grade includes the following elements:

- a. **Attendance and Classroom Engagement (150 points)**—You should be actively listening to lecture, asking questions, engaging in group discussions, attending field trips, and making it obvious that you have read the material for the day. Each absence not excused *in advance* will count 5 points against your course grade. Low levels of classroom engagement will result in point deductions at the conclusion of the semester. The attendance and engagement grade will also depend in part upon occasional in-class pop quizzes, designed to keep students current with readings and to strengthen class discussions.
- b. **Discussions in Facebook (100 points)**—You will be required to participate in a private Facebook group moderated by the instructor, in which you should post comments, news, events, etc. and otherwise discuss a variety of sustainability issues.

2. Careers, Internships, and Professional Positions (50 points, 5% of grade)

This assignment is for exploring potential job positions in relevant planning and energy fields.

3. SimCity – Creating a Sustainable Community (150 points, 15% of grade)

You will download SimCity 2000 or SimCity BuildIt on your PC, laptop, or mobile device, and create two different cities throughout the semester. You will then compose an analytical paper comparing and contrasting your two cities.

4. Sustainability Research Report (250 points, 25% of grade)

In this assignment you will learn how to propose, research, and write a professional research report. This includes using systems thinking, developing an appropriate research question, to evaluate sources, to develop a clear thesis and support that thesis with scholarly research, and to use a standard citation format. You will also make a short presentation about your topic.

5. Midterm Exam (150 points, 15% of grade)

6. Final Exam (150 points, 15% of grade)

D. EXTRA CREDIT OPPORTUNITIES

1. **Campus Sketchup (50 points):** You may use Sketchup software to make a 3D image of campus.
2. **Photoshop Campus Map (50 points):** You may use photoshop to make a map of campus.
3. **Campus Event (50 points):** You may attend a campus sustainability event and write a short report summarizing the experience.

E. GRADING SCALE

92.6% or higher = A
90.0 – 92.5% = A-
87.6 – 89.9% = B+
82.6 – 87.5% = B
80.0 – 82.5% = B-
77.6 – 79.9% = C+

72.6 – 77.5% = C
70.0 – 72.5% = C-
67.6 – 69.9% = D+
62.6 – 67.5% = D
60.0 – 62.5% = D-
Less than 60% = F

III. COURSE POLICIES

A. ASSIGNMENTS

To receive full credit, assignments must be submitted by the stated deadline. Assignments turned in after the deadline will be considered late and will be subject to a 10% per-day late penalty. For example, a 100-point assignment that is two days late will, at most, be worth 80 points. The instructor reserves the right not to grade work submitted more than two days late.

B. ATTENDANCE

Absences due to illness, family emergency, or University sponsored activities may be excused if a written explanation is provided prior to the intended absence (except for emergencies, in which case an explanation should be provided as soon as practical). If absences occur on days when assignments are due, then it is your responsibility to see that the assignments are turned in prior to the due date in order to receive credit. If you need to miss a scheduled presentation assignment or exam, you must inform me beforehand and must explain why you are unable to be present at the scheduled time. Unexcused absences from presentations and exams will result in a grade of zero points.

C. ACADEMIC INTEGRITY

All work (unless part of a group project) must be done independently. Cheating, plagiarism, and other forms of academic misconduct will not be tolerated and will result in a grade of zero on the assignment. In addition, assignments turned in through CANVAS will be linked to turnitin.com – a program that compares your work to other sources to check for originality. The UWSP Community Bill of Rights and Responsibilities specifies the University policies regarding academic misconduct and disciplinary action. This can be found at the following web address: <https://www.uwsp.edu/dos/Pages/Academic-Misconduct.aspx>.

D. OTHER COURSE POLICIES

- Posting course materials onto course-sharing websites directly violates the instructor's copyright on his intellectual property; permission to do so is unequivocally denied.
- All written work is expected to be grammatically correct, neat, and well organized. Work that is sloppy, hard to read, does not follow the prescribed format, and/or contains many spelling and/or grammatical errors will receive a grade of zero points.
- Cell phones will be put into pockets/backpacks/bags or otherwise stowed away during lecture and discussion. Appearance of your cell phone during class will indicate your disinterest in the topic and will thus count as an absence, and you will lose attendance points when this occurs.

E. EMERGENCY PREPAREDNESS

- In the event of a medical emergency, call 911 or use one of the red emergency telephones, which are located outside Room 151, outside Room 172, between Rooms 252 and 255, and between rooms 219 and 221 (across the hall). Offer assistance if trained and willing to do so. Guide emergency responders to victims when instructed.

- In the event of a tornado warning, stay in the classroom. Lecture and discussion rooms in TNR both provide appropriate shelters.
- In the event of a fire alarm, evacuate the building in a calm manner. Meet at the northwest corner of parking lot E. Notify the instructor and/or emergency command personnel of any missing individuals.
- Active Shooter – Run/Escape, Hide, Fight. If trapped, hide, lock doors, turn off lights, spread out and remain quiet. Follow instructions of emergency responders.
- See the UW-Stevens Point Emergency Management Plan at www.uwsp.edu/rmgt for details on all emergency response issues at UWSP.

E. ACCESSIBILITY STATEMENT

If you have a learning or physical challenge which requires classroom accommodation, please contact the UWSP Disability Services office with your documentation as early as possible in the semester:
103 Student Services Center, (715) 346-3365; TTY (715) 346-3363;
www.uwsp.edu/special/disability/studentinfo.html

**** THE SYLLABUS, ASSIGNMENTS, GRADE WEIGHTS, AND COURSE SCHEDULE ARE ALL SUBJECT TO CHANGE. THE INSTRUCTOR WILL NOTIFY THE STUDENTS AS SOON AS ANY SUCH CHANGES ARE MADE AND WILL PROVIDE UPDATED COURSE MATERIALS AS APPROPRIATE. ****

Date	Lecture Topic	Readings	Assignments
January 23	Introductions, Sustainability	<ul style="list-style-type: none"> • Green and Haines, Chapter 3 • Remington-Doucette, Chapter 1, p.3-13 and 28-42 	Start Sim City Start Facebook
January 28	Challenges, Assets, & Community Capital	<ul style="list-style-type: none"> • Green and Haines, Chapter 1 • Planetary Boundaries Video 	
January 30	Systems Thinking	<ul style="list-style-type: none"> • Kim, Introduction to Systems Thinking • Remington-Doucette, Chapter 2, pp. 66-98 	
February 4	Resilience	<ul style="list-style-type: none"> • Walker, et al. Chapter 2, pp. 28-38 • Remington-Doucette, Chapter 5, pp. 235-298 	
February 6	Land Use	In-class board game – ZONE!	Sustainability Report Proposal due
February 11	Human Impacts	<ul style="list-style-type: none"> • Remington-Doucette, Chapter 1, pp. 21-31 	
February 13	Energy	<ul style="list-style-type: none"> • Mathez, Chapter 10 • Wisconsin Megatrends: Energy 	
February 18	Climate Change	<ul style="list-style-type: none"> • Mathez, Chapter 5 and 6 	
February 20	Energy 2	Field trip – Heating Plant at the north end of campus (tentative)	
February 25	Planning	<ul style="list-style-type: none"> • Kelly & Becker. Chapter 01, Introduction to Planning. 	Sustainability Report Draft #1 due
February 27	Process	<ul style="list-style-type: none"> • Green and Haines, Asset Building, Chapter 4, p.78-89 • Remington-Doucette, Chapter 2, p. 99-111 	Sim City photo due; delete/start again
March 4	Exam Review	Ask questions about the material	
March 6	Midterm		
March 11	Methods	<ul style="list-style-type: none"> • Green and Haines, Asset Building, Chapter 4, p.89-106 • Remington-Doucette, Chapter 3, pp. 121-161, 176-179 	
March 13	In-class work time OR guest lecture	Determined by class vote	
March 16-24		SPRING BREAK	

March 25	Economics	<ul style="list-style-type: none"> • Newton and Contarello, Chapter 1 • Senge, Chapter 8 • Neoliberal Capitalism 	
March 27	Food	<ul style="list-style-type: none"> • Green and Haines, Asset Building, Chapter 13, p.321-330 • Caton-Campbell – Community Food Systems 	
April 1	Local Food and Agriculture	Field trip –Farmshed (tentative)	Sustainability Report Draft #2 due
April 3	Peer Reviews	Bring 2 hard copies of Draft #2 (or updated) to class for peer reviews	
April 8	Environmental Capital	<ul style="list-style-type: none"> • Green and Haines, Asset Building, Chapter 10, p. 254-256 and 260-282. 	
April 10	Social, Financial, and Human Capital	<ul style="list-style-type: none"> • Green and Haines, Asset Building, Chapter 7 and 9 	Career Assignment due Friday, 4/12 by 5 pm
April 15	Political Capital and Power	<ul style="list-style-type: none"> • Green and Haines, Asset Building, Chapter 11 	
April 17	Physical Capital: Neighborhoods	<ul style="list-style-type: none"> • Girling and Kellett. Skinny Streets and Green Neighborhoods, Chapter 1 • Infill Restructuring, pp. 1-36 	
April 22	Physical Capital: Green Building	<ul style="list-style-type: none"> • Green and Haines, Asset Building, Chapter 8 • Wisconsin Megatrends: Housing 	
April 24	Campus Sustainability	Science Building Tour (tentative)	Sim City Report due Friday, 4/26 by 5 pm
April 29	Work day	May be subject to change	
May 1	Research Presentations		
May 6	Research Presentations		
May 8	Review for Final		Sustainability Report due Friday, 5/10 by midnight
May 13	Final Exam	12:30-2:30 pm, TNR 271	