



GGS 303-002

Conservation of Resources and Environment

Fall 2015

Instructor: Sharon Spradling, Adjunct Professor
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Office in room 2219 of Exploratory Hall
Office hours Wednesdays 4:15-5:00 PM (right after class) and by appointment

Lectures: Wednesdays 1:30-4:10 PM in room 2310 of Exploratory Hall

Textbook: *Natural Resources Conservation; Management for a Sustainable Future (10th Edition)*.
Daniel D. Chiras, John P. Reganold
ISBN-13: 978-0132251389 ISBN-10: 0132251388 Edition: 10th
Available at the George Mason University (GMU) Bookstore or on Amazon

Prerequisites: At least 30 total credit hours, completion or concurrent enrollment in all university general education courses or permission of instructor.

Course Description:

This course provides an in-depth look at the distribution, use and conservation of the world's resources. Studies will center on the concept of sustainability, which is defined as meeting the needs of the present human population without compromising the ability of future generations to meet their needs. Four major and interrelated issues threatening sustainability will be examined in detail:

1. A human population experiencing exponential growth
2. Overconsumption and depletion of natural resources
3. Environmental pollution
4. Climate change

As a GMU **Synthesis course**, this course will require students to synthesize the knowledge, skills and values gained from the Mason Core curriculum and expand each student's ability to master new content, think critically, and develop life-long learning skills across the physical and social sciences. Upon completing this synthesis course, students will achieve learning outcomes enabling them to:

1. Communicate effectively in both oral and written forms, applying appropriate rhetorical standards (e.g., audience adaptation, language, argument, organization, evidence, etc.)
2. Using perspectives from two or more disciplines, connect issues in a given field to wider intellectual, community or societal concerns
3. Apply critical thinking skills to evaluate the quality, credibility and limitations of an argument or a solution using appropriate evidence or resources.

This course is also a GMU **Green Leaf Sustainability-related course**. Completion of this course will provide students with in-depth knowledge of a particular aspect or dimension of sustainability (natural resources) or by providing a focus area (such as renewable energy) for a student's sustainability studies.



Grading Policy:

There will be two in-class examinations (a midterm and a final), one individual presentation on an assigned topic, and homework assignments consisting of short papers based on assigned readings or other exercises. Class participation is essential, so attendance and participation will account for 10% of your final grade.

<u>Activity</u>	<u>% of Final Grade</u>
Assignments/Short papers	20%
Individual Presentation	23%
Editing a Classmate's Presentation	2%
Midterm Exam	20%
Attendance/Classroom Participation	10%
Final Exam	25%

In the absence of a submission for any of the above activities, the student's grade is a zero. Missed exams and presentations may not be made up except in extreme circumstances. Homework assignments may be submitted up to 2 days late, and will be marked down one letter grade for each day they are late (maximum penalty is 2 letter grades). A student who has not provided edits to an assigned classmate's presentation within 24 hours after submission will receive a grade of 0 for this requirement.

George Mason University does not dictate a grading scale. Instructors may determine cut off points for A, B, C, etc. The use of plus and minus grades for A, B, C is also at the instructor's discretion.

Honor Code

Students are expected to follow the George Mason University rules of student conduct as noted in the catalog.

GMU Email Accounts

Students must use their GMU email accounts to receive important University information, including messages related to this class. Please do not send emails to your instructor from non-GMU accounts.

Office of Disability Services

If you require academic accommodations due to a permanent or temporary disability, please contact the Office of Disability Services (ODS) at (703)993-2474, <http://ods.gmu.edu>.

Learning Outcomes:

By the end of this course, students will be able to:

1. Understand the importance, distribution, current use and limits of the world's natural resources
2. Understand and analyze global environmental issues
3. Evaluate and analyze the impact of resource exploitation
4. Understand and describe the balance between ecology, technology and the economy
5. Understand the concepts of sustainability and conservation planning
6. Prepare and execute an effective classroom presentation on a natural resources topic



7. Critically review and analyze assigned readings on natural resources and sustainability



Course Schedule

Class	Dates	Topics	Due at start of class	Presentations
1 st	2 Sep	Introduction, Course Overview, Presentation Topic Selections, Natural Resource Conservation	Due in class: Assignment #1 (Questionnaires)	
2 nd	9 Sep	Discussion on Presentations World Population	Readings: Book chapters 1&2	
3 rd	16 Sep	Finish World Population Principles of Ecology	Assignment #2 due	
4 th	23 Sep	Economics & Sustainability	Readings: Book Chapter 2	
5 th	30 Sep	World Food and Agriculture	Readings: Book Chapter 5 Assignment #3 due	
6 th	7 Oct	Water Resources Review for Midterm Exam	Readings: Book Chapter 10	
7 th	14 Oct	Midterm Exam		
8 th	21 Oct	Mining	Readings: Book Chapter 21 Assignment #4 due	
9 th	28 Oct	Energy – Fossil Fuels	Readings: Book Chapter 22	
10 th	4 Nov	Energy – Nuclear	Assignment #5 due	
11 th	11 Nov	Energy – Alternative Sources	Readings: Book Chapter 23	
12 th	18 Nov	Pollution	Readings: Book Chapters 11 & 18 Assignment #6 due	
	25 Nov	Thanksgiving Recess		
13 th	2 Dec	Climate Change	Assignment #7 due	
14 th	9 Dec	Climate Change and Geoengineering Review for Final Exam		
	16 Dec	Final Exam		

This syllabus is subject to change during the semester as conditions dictate.