

Department of Geography & GeoInformation Science

GGS 303-001: Geography of Resource Conservation

Spring 2019

Instructor Contact Details		Course Details	
Name	: Maction Komwa, PhD	Meeting Times	: TR 12:00 noon – 1:15 pm
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Required 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

Provides analysis of world resources distribution, conservation, and preservation; and problems resulting from their natural occurrence and utilization. Uses knowledge from physical and social sciences to develop complex and sophisticated understanding of issues surrounding natural resource exploitation and management, conservation, and preservation.

Course Overview

Conservation of Resources and Environment addresses the physical, environmental, economic, and human aspects of the availability and use of resources. The conservation and use of natural resources involves all aspects of problems resulting from their unequal distribution or unwise use. Humans exist in an interdependent world where technology and the natural resources must work in a supportive and balanced manner or both the environment and the human population will suffer. Humankind must find ways to make technology and the natural environment work synergistically in order to guarantee long-term sustainable development that does no permanent harm to our living space.

In order to address this major topic in a sophisticated and holistic manner a number of subjects must be included in the discussion. The way in which resources are used has a major impact on the quality of life (including health and safety); the economic well-being of all peoples of the world; the level and type of conflicts that occur among peoples and nations; and the long-term protection of the total ecosystem.

Learning Outcomes

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. Understand the importance of various natural resources and how they are managed at a local or global scale.
2. Understand a global distribution of the earth's resources.
3. Evaluate and analyze the impact of resource exploitation.

4. Understand the concepts of conservation planning and sustainability of human utilization of natural resources
5. Apply critical thinking skills to evaluate the quality, credibility and limitations of an argument or a solution using appropriate evidence or resources.
6. Communicate effectively in both oral and written forms, applying appropriate rhetorical standards (e.g., audience adaptation, language, argument, organization, evidence, etc.)

Breakdown of Course Assignments

The following assignments and grading criteria will be used to determine your final grade:

Assessment description	% (of final grade)
Written Assignments [Critical response/Reflection, and Article summaries]	10
Practice Quizzes [In-class and Online]	5
In-Class Activities, & Participation [No make-up for all In-class activities]	10
Online Discussion [Discuss course concepts with classmates by responding to posts]	5
Midterm Exam	10
Final Exam	20
Group Draft Review [Details will be discussed in class]	5
Group Research Project <ul style="list-style-type: none"> • Description of the topic • Project Proposal • Presentation • Final Paper 	1 4 10 20
Total	100

Grading Scale							
Grade	Percentage	Grade	Percentage	Grade	Percentage	Grade	Percentage
A+	98 -100%	B+	87 – 89%	C+	78 – 79%	F	below 60%
A	93 -97%	B	83 – 86%	C	70 – 77%		
A-	90 -92%	B-	80 – 82%	D	60 – 69%		

I expect well-written assignments that demonstrate understanding of the concepts and the course material.

Late Policy

You should complete all assignments by due date. There will be no make-up on Quizzes and Exams unless accompanied by compelling evidence or in the case of **University-excused absences**.

Late Written Assignments will be penalized at 5 points per day. Activities more than 5 days late automatically receive zero points. If you submit your assignment past the deadline even if it is 1 minute late, I will consider that as late submission, so you should plan your time accordingly.

Short Critical Response and Reflection Papers & Article Summaries

- Students will submit short Critical Response/Reflection Papers including Reading summaries over the course of the semester beginning end of week 2
- Copies should be posted at the very latest by the student on Blackboard by 11:59 pm of due date

You will be prompted to use critical thinking to create a comprehensive reflection piece detailing your understanding of the concepts discussed in class, class readings, your experience and what you learned from it (learning outcome) and how this relates to conservation of natural resources and environment. Details of these assignments will be discussed in class and instructions will be uploaded through the

Blackboard -- ASSIGNMENTS Folder.

Note: SafeAssign (Blackboard Plagiarism Prevention Tool) will be used to check your written submissions for plagiarism.

Group Semester Project

A group will comprise three students who will make a final presentation about the geography and conservation of a natural resource topic as per class discussion. The project will consist of a series of assignments, which will be completed in your small groups. The details for the assignments are presented below:

- i. One-page description of a problematic topic of your group choice relevant to conservation and use of environmental resources. In your write-up identify a problem statement or research questions. Show why the problem is problematic. Motivate your readers to see the problem's importance. Details of the project will be discussed in class. You will be required to include annotated bibliography.
- ii. **Final Group Presentation.** Each group will present their term project relevant to conservation or environmental management subject of interest to you. The team will be given 15-20 minutes of PowerPoint presentation including Q&As (This will depend on class size).
- iii. **Group Final Written Paper.** This will be a written team project relevant to conservation or environmental management. Details of the group project will be given later during the semester.

Classroom Expectations:

Students are expected to be on time for class. Regular attendance is strongly recommended.

1. Should circumstances arise that make you late, do not disrupt the class as you enter, take the first available seat and do not walk across the room.
2. In the event of any class cancellation, including inclement weather (e.g. snow), the class will resume where we left off, Adjustments, if necessary, will be made later.
3. For each hour of in-class time you should anticipate three hours to complete out-of-class work and preparation.
4. Cell Phones and pagers must be turned off during class. Zero tolerance!

Academic Honesty: George Mason University operates under an honor system, which is published in the University Catalog and deals specifically with cheating, attempted cheating, plagiarism, lying, and stealing. Please familiarize yourself with the honor code, especially the statement on plagiarism (<http://www.gmu.edu/org/honorcouncil/guidelines.htm>).

I will respond to acts of academic misconduct according to university policy concerning plagiarism. In such cases Plagiarism will result in a failing grade of the assignment in question and/or for the course. Make sure you check the instructions through the Blackboard on how to write your term papers. If you have questions about when the contributions of others to your work must be acknowledged and appropriate ways to cite those contributions, please talk with the professor.

University Services

George Mason University has a number of academic support and other resources to facilitate your success. Some of these resources are presented below:

- i. Counseling and Psychological Services [<http://caps.gmu.edu/>]
- ii. Learning Services, University Career Services [<http://careers.gmu.edu/>]
- iii. Writing Center [<http://writingcenter.gmu.edu/>] and other Learning Services within GMU.
- iv. University Catalog: <http://catalog.gmu.edu/>
- v. University Policies: <http://universitypolicy.gmu.edu/>

Absences & Accommodations

Students are expected to attend all classes and to complete all assignments on time. Absences may have an adverse effect on grades in a course including failure.

Excused absences: In certain circumstances, absences may be excused. These include:

- **Absence for religious observances:** Students must notify their professors in writing at the beginning of the semester of religious observances that conflict with classes. Students who cannot be accommodated should discuss the matter with a dean.
- **Absence for athletic travel:** Student-athletes must provide their professors with a travel letter at the beginning of the semester which highlights potential absences. Students who cannot be accommodated for some or all absences should discuss the matter with the relevant Academic Coordinator for Student-Athletes.
- **Absence for documented illness:** Students who miss multiple classes due to prolonged illness should seek medical care and provide documentation of such to the Dean's Office, which will communicate with the student's professors. A prolonged absence may necessitate the student's withdrawal from the course or from the University for the semester.
- **At the discretion of the professor:** There may be cases where an absence is undocumented but is, nevertheless, excused by the professor (e.g., absence due to a death in the family). Students should initiate a conversation with their professors about the nature and duration of the absence, in advance of the absence whenever possible.

When absences are excused, students remain responsible for all assigned work, and shall be provided with the opportunity to make up, without penalty, any work that they have missed.

Students with Disabilities

Students with documented and qualifying learning, physical and psychological disabilities should contact the Disability Services (ODC), which arranges for reasonable accommodations in accordance with the Americans with Disabilities Act and University policies. In order to arrange accommodations in each course, the student must present his/her professors with a letter from the ODC outlining the recommended accommodations at the beginning of the semester. Disability Services (ODC) website:

<http://ods.gmu.edu/> / Student Union Building I (SUB), Room 2500. Telephone: (703) 993-2474.

Notice of mandatory reporting of sexual assault, interpersonal violence, and stalking:

As a faculty member, I am designated as a "Responsible Employee," and must report all disclosures of sexual assault, interpersonal violence, and stalking to Mason's Title IX Coordinator per University Policy 1412. If you wish to speak with someone confidentially, please contact one of Mason's confidential resources, such as Student Support and Advocacy Center (703-380-1434) or Counseling and Psychological Services (CAPS) (703-993-2380). You may also seek assistance from Mason's Title IX Coordinator by calling 703-993-8730 or emailing cde@gmu.edu.

Course Outline/Schedule

You should be referring to the course schedule and blackboard for specific readings, activities, and assignments. The course instructor reserves the right to make changes as necessary to the course content and office hours during the course of the term. If these changes are made they will be immediately notified to students through individual emails or the blackboard explaining the nature of the change.

Date	Topic Description	Reading Assignment
01/22	Introductions and Course Overview	Read the Syllabus
Chapter 1: Introduction to Natural Resource Conservation: Themes & Concepts		
01/24	A Crisis on Planet Earth? Differing Viewpoints: Are we on a Sustainable Course?	Read Chapter 1 pg. 1-4
01/29	History of the Resource Conservation, Environmental, and Sustainability Movements Natural Resources Classification	Chapter 1 – Discuss Case Study 1.1 – The Earth Summit and Beyond
01/31	Classification of Natural Resources The Environment and You: Importance of Citizen Action <i>In-class Activity and Class Debate on the State of Nature</i>	Read Chapter 1 Read article on The State of Nature by Carl Pope and Bjorn Lomborg
02/5	Tools for Resource Management: Introduction to GIS and Remote Sensing	Read Page 17
Chapter 2: Environmental economics and ethics		
02/7	Introduction to environmental & Natural Resources Economics	Read Chapter 2
02/12	Creating a Sustainable Economy	Read Chapter 2
02/14	Common Property Resource Problems <i>Problem-based learning Activity on “The Tragedy of the Commons”</i>	Read “The Tragedy of the Commons” (ToC) – check Article through the BB
Chapter 4: Human Population, Consumption, and Environment		
02/19	Understanding Populations and Population Growth	Read Chapter 4
02/21	Demographic Transition	Read Chapter 4
02/26	Controlling the Growth of the World’s Population Earth’s Carrying Capacity <i>Case Studies on Human Population and In-class Activity</i>	Read Chapter 4 Case Study 4.1
Chapter 10 – Water: Resources Management		
02/28	Global Water Challenges & Kinds of Water Use <i>Mid-Term Exam Review</i>	Read Chapter 10
03/5	Managing Water Resources Sustainably	Read Chapter 10 Case Study 10.1
03/7	Mid- Term Exam	

Date	Topic Description	Reading Assignment
03/11 - 03/17	Spring Break	
	Chapter 11: Water Pollution	
03/19	Types of Water Pollution Major Pollutants, Prevention and Control	Read Chapter 10 A Closer Look check 11.1 & 11.2
03/21	Legislating Water Pollution Pollution of Oceans	Read Chapter 11
03/26	<i>In-class Simulation Activity on Oceans Pollution [Plastic or planet?]</i>	Handout – Check Blackboard
	Chapter 19: Global Warming & Climate Change	
03/28	Global Climate and Evidence for Present Climate Change	Read Chapter 19
04/2	Causes of Present Climate Change Climate Models and Forecast	Read Chapter 19 Ethics in Resource Conservation 19.1 A Closer Look 19.1
04/4	<i>Class Group Simulation Activity on Climate Change</i>	Simulation Activity Handout [Check the Blackboard]
	Chapter 14: Forest Management	
04/9	Forest Ownership Harvesting Trees	Read Chapter 14
04/11	Reforestation Reversing Tropical Deforestation	Read Chapter 14 A Closer Look 14.4 & 14.5
	Chapter 15: Plant and Animal Extinction	
04/16	Overview - Plant and Animal Extinction Biodiversity under Threat	Read Chapter 15
	Chapter 23: Creating a Sustainable System of Energy	
04/18	Overview: Energy Conservation & Energy Efficiency	Read Chapter 23 Read a Closer Look 23.1
04/23	<i>Group Presentation</i>	
04/25	<i>Group Presentation</i>	
04/30	<i>Group Presentation</i>	
05/2	<i>Group Presentation</i>	
	<i>Submit your Final Group Paper through the Blackboard – 5/6 by 11:59 pm</i>	
05/9	<i>Final Exam [10:30 am – 1:15 pm]</i>	

Instructions on **ALL Assignments / Quizzes / In-Class Activities** and due dates will be posted through the Blackboard. You should always check the Blackboard.