

Meeting Time: Mondays and Wednesdays 12:00 – 1:15 pm
Room: Exploratory Hall 2312
Credit Hours: 3

FACULTY CONTACT INFORMATION:

Name : Maction Komwa, PhD
Room : 2414 Exploratory Hall
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Prerequisites: At least 30 total credit hours, completion or concurrent enrollment in all university general education courses or permission of instructor.

Course materials and requirements: Natural Resources Conservation; Management for a Sustainable Future (10th Edition).

Daniel D. Chiras, John P. Reganold

ISBN-13: 978-0132251389 ISBN-10: 0132251388

Available at the George Mason University (GMU) Bookstore or any other sources

Additional reading assignments from other sources will be posted on the ***Blackboard*** course website, at <http://mymason.gmu.edu>. It is your responsibility to check the course website ***regularly***.

About This Course

The course 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 involve 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.

Finally, throughout the semester, we will use and reflect the traditional use of geography, which integrates studies of physical and human phenomena to understand human use of the earth.

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. Learn how to analyze and quantitatively evaluate the significance of resource patterns and trends.
3. Develop a question or problem and investigate the issues, sources and evidence e.g. water crisis, conservation planning, or global distribution of the earth's resources.
4. Evaluate and analyze the impact of resource exploitation.
5. Utilize synthesized solution to understand the concepts of conservation planning and sustainability of human utilization of natural resources.
6. Apply critical thinking skills and quantitative reasoning to evaluate the quality, credibility and limitations of an argument or a solution using appropriate evidence or resources.
7. Communicate effectively in both oral and written forms, applying appropriate rhetorical standards (e.g., audience adaptation, language, argument, organization, evidence, etc.)

Assignments and Grading

Grading and assessment will be based on the combination of different assignments described below:

Assignments description	% (of final grade)
Written Assignments [Critical response/Reflection, and Article summaries]. <i>There will be several written assignments, in class and pre-class. Some will be completed in groups or by individuals. Instructions will be given through the Blackboard.</i>	10
Practice Quizzes [in-class and online quizzes will be administered]	6
Participation – Participation is based on attendance and in-class activities; online discussion forum based on weekly reading(s), lectures among many other topics. <ul style="list-style-type: none"> • I believe learning occurs best through discussion and deliberation and communicating those ideas through writing and presentation. 	10
Examination – There will be two in-class <i>closed-book</i> examinations during the semester - <i>Mid-Term</i> and a <i>final examination</i> at the conclusion of the course. We'll take some time to talk about study strategies and answer any possible review questions you may have a week before the exam. <i>Each exam will contain objective (multiple-choice) and short-answer questions, Fill-in the blank questions.</i> <ul style="list-style-type: none"> • <i>Mid-Term Exam</i> • <i>Final Exam</i> 	15
	20
	3
Draft Review [Details will be discussed in class]	3
Final Group Project <ul style="list-style-type: none"> • Description of the topic • Progress Report/draft • Final Paper 	1
	5
	20
Final Group Presentation	10
Total	100

Late assignments will be penalized at 5 points per day. Activities more than 4 days late automatically receive zero points. FYI - if you submit your assignment past the deadline even if it is 1 minute late (*i.e. 12 midnight instead of 11:59 pm*), I will consider that as late submission, so you should plan your time accordingly.

- *There will be no make-up on Quizzes and Exams unless accompanied by compelling evidence or in the case of **University-excused absences.***

Grading Scale

What is the difference between a "B" and an "A"? The following will be your Letter Grade and Percentages to determine your final grade for this course.

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%		

Summary and description of Assignments

Short Writing Assignments

- Students will submit short writing assignments over the course of the semester. These several writing assignments will cover a variety of topics integrated with course readings and lectures. Clear written, specific instructions/steps and grading criteria regarding these assignments will be posted through the Blackboard in the “*Assignment Folder*”.
- *All assignments must be submitted on Blackboard. Your electronic copy should be saved as word document. Do NOT type assignment directly into the Blackboard. All short writing assignments are due by 11:59 pm. Check all due dates at-a glance through the Blackboard.*

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

Group Research Project

Beginning week 2 – the class will be divided into groups for the group project of three students each. The group will work on an original class project on the geography of resource conservation or any related topics to the core theme of the course. (*Any project presented in a different course will not be accepted – you should not recycle your research project*). The project will consist of a series or blocks of various assignments (*i.e. research topic and description to be approved by the instructor; Progress Report; Final Paper and Group Presentation*). Specific instructions will be discussed in class and be made available through the Blackboard

Examinations, Quizzes and in-class activities and simulations – for details check Assignments & Grading section above.

Course policies/My Expectations:

1. Students are expected to attend (on time) each class and be engaged when they are in class. The class will be interactive if all of us will be involved in discussing and learning the material.
2. For any planned absence, please inform the instructor in advance. It will be your responsibility to track down any missed material, assignments, etc. Any missed work without any supporting evidence will not be accepted.
3. 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.
4. 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.
5. All students should be respectful to all other students in class or during debate or class discussion forum and simulation activities. It is common knowledge to say that people have different opinions, values and concerns during any assigned debate/discussion, therefore, it is important to maintain respect during class debated and discussion.
6. You should submit your own work in all your written assignments unless otherwise stated like in group activities or group project.
7. Cell Phones must be turned off during class. Zero tolerance!
8. *What do we do about potential disruptions” in class?*

What you can expect from me:

- There will be fair assessment of student work and treat each member of our class with respect.
- Will return your work on time
- Clear communicate of course information
- Available for any additional assistance during my office hours or any other arranged times and respond to your emails on time.

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.

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. University Career Services [<http://careers.gmu.edu/>]
- iii. Writing Resources: Tutors at the Writing Center are available to assist you: Robinson B, room 213, 703-993-1200, writingcenter.gmu.edu
- iv. University Catalog: <http://catalog.gmu.edu/> |
- v. University Policies: <http://universitypolicy.gmu.edu/>
- vi. Library Study Rooms: library.gmu.edu/use/study-rooms
- vii. Student Technology Assistance & Resource Center (STAR): Provides all kinds of technology support: JC, room 229, 703-993-8990, bit.ly/2hWj10y
- viii. Student Support & Advocacy Center: Assistance regarding healthy lifestyle and educational choices: SUB I, suite 3200, 703-993-3686, ssac.gmu.edu
- ix. Food Pantry: Access food and household items: SUB I, suite 3011, pantry@gmu.edu

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: ds.gmu.edu - SUB I, 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.

Diversity Statement

GMU promotes a living and learning environment for outstanding growth and productivity among its students, faculty, and staff. Mason strives to maintain a quality environment for work, study, and personal growth. An emphasis upon diversity and inclusion throughout the campus community is essential to achieve these goals. Diversity includes, but is not limited to, race, ethnicity, gender, religion, age, disability, and sexual orientation. Diversity also entails different viewpoints, philosophies, and perspectives. Attention to these aspects of diversity will help promote a culture of inclusion and belonging, and an environment where diverse opinions, backgrounds and practices have the opportunity to be voiced, heard, and respected.

Email Policy: No emails from other accounts (e.g. Gmail; Yahoo, etc.) will be acknowledged. Please use your student GMU Email account only if you want to communicate with your Instructor!

Course schedule/calendar

Date	Topic Description	Reading Assignment
8/26	Course Overview	Main points from the Syllabus
Chapter 1: Introduction to Natural Resource Conservation: Themes & Concepts		
8/28	An introduction to Natural Resources; Resource Cognition and Value; Conserving Resources: What does it mean? <i>Article: Integrating conservation planning with human communities, ecosystem services & economics.</i>	<i>Article – check the Blackboard</i>
9/2	Labor Day – No Classes	
9/4	Natural Resource Conservation and Management History of the Resource Conservation, Environmental, and Sustainability Movements	<i>Chapter 1 Pages 1-12</i>
9/9	Natural Resources Classification Approaches to Natural Resource Management <i>In-class Activity and Class Debate on the State of Nature – class will be divided into 2 groups [Carl Pope views vs Bjorn Lomborg views]</i>	<i>Chapter 1 Pages 1-12 Read article on The State of Nature by Carl Pope and Bjorn Lomborg</i>
9/11	The role of GIS in Environmental Research, Conservation, Management & Planning <i>Group Project Formation</i>	Read Page 17 – 20
9/16	GIS Hands-on Activity – Identification and mapping habitat cores	Check Blackboard for Reading(s)
Chapter 2: Environmental economics and ethics		
9/18	Introduction to environmental & Natural Resources Economics	Read Chapter 2 [Pages 25-32]
9/23	Common Property Resource Problems <i>Problem-based learning Activity on “The Tragedy of the Commons”</i>	<i>Read “The Tragedy of the Commons” (ToC) – check Article through the BB</i>
9/25	Environmental & Sustainable Ethics Critical Thinking	<i>Chapter 2 [Pages 39-45]</i>
Chapter 4: Human Population, Consumption, and Environment		
9/30	Understanding Populations and Population Growth Demographic Transition	Read Chapter 4 [Pages 86-93]
10/2	Impact of Overpopulation and Environment Controlling the Growth of the World’s Population	Read Chapter 4 [Pages 93-102]
10/7	Spatial Analysis of Population data [GIS hands-on]	Check article – Blackboard
10/9	Spatial Analysis of Population data continued Mid- Term Review	Check article – Blackboard
10/15	Fall Break (Monday classes/labs meet Tuesday. Tuesday classes do not meet this week) Mid-Term Exam [Chapters 1, 2 & 4]	
Chapter 10 – Water: Resources Management		
10/16	Global Water Challenges & Kinds of Water Use	Read Chapter 10

Date	Topic Description	Reading Assignment
10/21	Managing Water Resources Sustainably	Read Chapter 10 Case Study 10.1
Chapter 11: Water Pollution		
10/23	Types of Water Pollution Major Pollutants, Prevention and Control	Chapter 11 [Pages 257-279] Case Study 11.1 & 11.2
10/28	Legislating Water Pollution Pollution of Oceans	Chapter 11 [Pages 292- 301]
10/30	<i>In-class Simulation Activity on Oceans Pollution [Plastic or planet?]</i>	Handout – Check Blackboard
Chapter 19: Global Warming & Climate Change		
11/4	Global Climate and Evidence for Present Climate Change	Read Chapter 19
11/6	Causes of Present Climate Change Climate Models and Forecast	Read Chapter 19 Ethics in Resource Conservation 19.1 & A Closer Look 19.1
11/11	<i>Class Group Simulation Activity on Climate Change</i>	Simulation Activity Handout [Check the Blackboard]
Chapter 14: Forest Management		
11/13	Forest Ownership Harvesting Trees	Read Chapter 14
11/18	Reforestation Reversing Tropical Deforestation Application of GIS in Forest Management	Read Chapter 14 A Closer Look 14.4 & 14.5
Chapter 15: Plant and Animal Extinction		
11/20	Overview - Plant and Animal Extinction Methods of Preventing Extinction	Chapter 15
11/25	<i>Group Presentation</i>	
11/27	Thanksgiving Recess (No classes)	
Chapter 23: Creating a Sustainable System of Energy		
12/2	Overview: Energy Conservation & Energy Efficiency Final Exam Review	Chapter 23
12/4	<i>Group Presentation</i>	
12/9	<i>Reading Day</i>	
12/16	In-class Final Exams	10:30 am – 1:15 pm

“This syllabus, like any other courses you have taken, should be perceived as an evolving experience, and from time to time changes might become necessary. As instructor, I reserve the right to modify this syllabus, with the condition that those changes will be communicated to the entire class clearly and in writing.”