

GGG 303-003: Conservation of Resources and Environment

Instructor information:	Maction Komwa, Ph.D.
	: Exploratory Hall – Room 2210
	Tel: 703-993-5646; email: mkomwa@gmu.edu
Office hours	: Tuesdays [1:00 pm – 2:30 pm] or by appointment
Class Meetings	: M, W 12:00 PM – 1:15PM
Location	: Exploratory Hall 2103

Course Format: Lecture, twice a week

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

By the end of the course students will be able 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. Understand and analyze global environment issues.
4. Evaluate and analyze the impact of resource exploitation.
5. Understand and describe the balance between technology, ecology and economy.
6. Understand the concepts of conservation planning and sustainability of human utilization of natural resources

7. Prepare and present analyses of natural resource topic using the principles and practices of the scientific method.
8. Critically read and summarize assigned textbook readings including primary and secondary literature.

Critical thinking and writing assistance

This is synthesis course that will provide you the opportunity to synthesize the knowledge, skills, both oral and written forms, and above all the application of critical thinking [CT]. The application of CT will enable you to:

1. Evaluate the quality, credibility and limitations of an argument or a solution using appropriate evidence or resources, OR,
2. Judge the quality or value of an idea, work, or principle based on appropriate analytics and standards through the articles that will be read throughout the semester.

I will spend time in class discussing the specific expectations of the weekly writing assignment as well as your final paper. I expect your final paper to be thesis driven. This means it should be grammatically correct and edited. Feel free to ask me questions in class or during my office hours. Additionally, students are encouraged to make appointment with the Writing Center where they can get a one –on one assistance.

Grading and Assignments

There will be two in-class examinations (a midterm and a final), one final group presentation on a topic of your group interest based on the concepts and themes of the course. Additionally, students will also complete homework assignments consisting of short papers based on assigned readings or other exercises/online quizzes.

Assignment Description	%
*Short Writing Assignment (x8)	10
Online Quizzes x4	5
Discussion Leaders based on assigned Reading(s)	5
Mid Term Exam	20
Final Exam	20
Topic description for group Project	5
Group Presentation	10
Final Group Paper	20
Your level of class engagement and participation will be evaluated by Instructor at the end of the semester	5
Total:	100

**Lost grade of your short writing assignment will be dropped*

Note:

Late work will lose 2.5 points for each day [for the first 3 days] thereafter your assignment will not be accepted. Time extension will not be accepted unless otherwise stated. All students are requested to keep up with the work and meet deadlines for assignments.

*Group Semester Project (GSP)

A group will comprise three - four students who will make a final presentation about 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 or less 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. You will also complete an annotated bibliography of at least 4 scholarly sources in APA Style to demonstrate that you have started working on your research project.
- ii. Final Group Presentation. Each group will present their term project relevant to conservation or

environmental management subject of interest to you. Time will be allocated according to the number of groups that will be created.

- iii. Group Final Written Paper. This will be a written team project relevant to conservation or environmental management. The following features should be included:
- It must be relevant to conservation or environmental management.
 - Your paper should identify and answer a specific research question of manageable scope [too broad research question can be distracting].
 - It must involve extensive literature review on the topic under investigation.
 - Details of the paper will be uploaded through the Blackboard Assignment Folder –within the next 2 weeks.
 - The paper should be typed, 12 point font, 1 inch margins, double spaced, and be 10 pages in length (not including illustrations, maps, statistics, and references).
 - Make use of at least 10 references from the professional literature. More detailed instructions will be distributed as the semester progresses.

Class Participation

You will be evaluated on your participation in class during our discussions. I am expecting each to be actively engaged in the discussion process during each class. You cannot participate fully if you don't show up for classes. Class participation will be graded accordingly: answering questions as well as asking questions, active listening while others are talking, bringing up points of interest for discussion either in class or through the Blackboard Discussion Forum. Such being the case it is very important that you do your reading assignments prior to class.

A sign-in sheet will be circulated at every class. It is your responsibility to sign it. Any absence unless it is a major emergency must have prior approval by the faculty. Note, missing 60% or more of the classes will result in a grade of S/A. At the end of the semester, to meet the presentation requirement of Synthesis course, students will present concisely their paper or projects in the form of Group Presentation. The presentation should be highly organized.

Posting of Grades:

All grades will be posted through the Blackboard. It is your responsibility to check the blackboard for any class announcements or grades. In the event of grade mistakes posted through the Blackboard please don't hesitate to contact your Instructor.

Student Requirements:

To successfully complete this course, students must complete all assigned readings as well as attend class; neither the text book nor lecture notes alone will suffice. Please take note that this course will challenge you intellectually and that missing 60% or more of the classes will result in a grade of S/A.

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. Do not eat or drink in the class, unless you bring enough for everyone,
3. Clean up after yourself. If you pack it in, pack it out; leave your seat better than you found it. Remember, take only notes, and leave only a warm seat.
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. For each hour of in-class time you should anticipate three hours to complete out-of-class work and preparation.
6. 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.

Electronic Communications & Blackboard

If you are enrolled in this course you will have access to the Blackboard site - available at: [<https://mymasonportal.gmu.edu>]. You will need to log on using your GMU user name and password. Blackboard will be used to submit your assignments and to check for announcements/critical updates to the syllabus or clarifications of assignments, and supplemental materials. It is the responsibility of the student to check the GMU Blackboard on a daily basis. Additionally, GMU policy requires all students to use their GMU account. Emails sent through gmail or yahoo accounts etc. will not be acknowledged.

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/>], Learning Services, University Career Services [<http://careers.gmu.edu/>] the Writing Center [<http://writingcenter.gmu.edu/>] and other Learning Services within GMU.
- ii. University Catalog: <http://catalog.gmu.edu/> | 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.

Accommodations:

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.

Tentative Outline of Topics, Reading Assignments and due dates

Date	Topic	Assignment & Due Date
8/31	Syllabus and class expectations	--
9/2	Chapter 1: Introduction to Natural Resource Conservation	--
9/7	Labor Day – Holiday, No class	--
9/9	Introduction to Natural Resource Conservation In-class Library Workshop	Assignment # 1
	Chapter 2 & 3: Economics and Ecology; <i>If Nature Had Rights</i>	
9/14	Economics	
9/16	Ecology	Assignment # 2
	Chapters 4 and 5: Population Challenge and World Hunger; Fixing the Food Crisis	
9/21	Population Growth and how to feed 7 billion people	Online Quiz 1
9/23	World Hunger: Solving the Problem Sustainably	--
9/28	World Food & Agriculture In-class group Activity	Assignment # 3
9/30	Chapter 7: Soil Conservation & Sustainable Agriculture	1 – 2 Pages Group Topic description
10/5	Mid-Term Exam	--
10/7	In-class Writing Workshop	Online Quiz 2
10/12	Columbus Day	--
	Chapters 10 and 11: Water Resource Management	
10/13 *	Water Cycle	Assignment # 4
10/14	Water Pollution	--
10/19	Chapter 22: Energy Resources	Online Quiz 3
10/21	Chapter 22: Energy Resources	
10/26	Chapter 23: Sustainable System of Energy	Assignment # 5
10/28	Chapter 14: Forest Management	
11/2	Chapter 14: Forest Management & Case Studies	--

Date	Topic	Assignment & Due Date
11/4	Chapter 19: Global Warming & Climate Change	
11/9	Chapter 19: Global Warming & Climate Change	Assignment # 6
11/11	Chapter 12: Fisheries Conservation and Management	--
11/16	Chapter 8: Integrated Pest Management	--
11/18	Chapter 18: Air pollution	Assignment # 7
11/23	Chapter 15: Plant and Animal Extinction	
11/25-29	Thanksgiving Recess, No class	--
11/30	Chapter 21: Mining & Sustainable Society	Online Quiz 4
12/2	Final Project Group Presentation	Assignment # 8
12/7	Final Project Group Presentation	--
12/9	Final Project Group Presentation	Final Group Project Paper
12/16	Final Exam 12/14 [10: 30 AM – 1:15 PM]	--

Syllabus Changes

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(s).