Department of Geography & Geoinformation Science

GGS 303-001 [Hybrid] Fall 2020

Geography of Resource Conservation

Name	:	Maction Komwa, PhD	Meeting Times	:	MW| 12:00 – 1:15 pm
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Phone	:	703-993-5646	Credits	:	3.00

Virtual Office hours: Tuesdays and Thursdays: 3:00 pm - 4:00 pm or by appointment.

Courser Description:

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.

Required Textbooks:

Natural Resource Conservation: Management for a Sustainable Future. 10th Edition
Daniel D Chiras Daniel Chiras John P Reganold John Reganold
ISBN: 0132251388
ISBN-13: 9780132251389

Recommended Textbook: Aldo Leopold's - A Sand County Almanac

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 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.
planning.

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 quantitively 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.

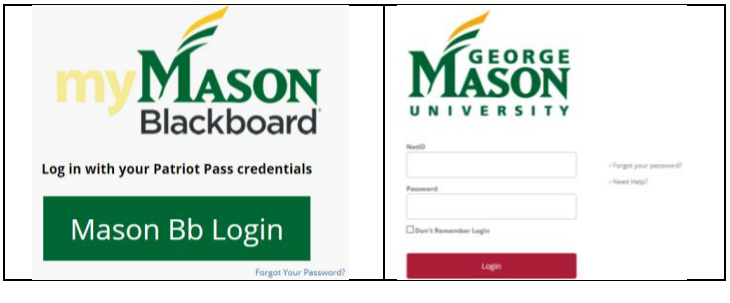
4. Evaluate and analyze the impact of resource exploitation.
5. Utilize synthesized solution to understand the concepts of conservation planning and sustainability of human utilization of natural resources.
6. Apply critical thinking skills and quantitative reasoning to evaluate the quality, credibility 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.)

Instructional Methodology

- This is a hybrid course meaning – an instructional delivery method which combines the face to face delivery, synchronous, or guided distance delivery formats. During the face-to-face instruction time, students can be engaged in realistic, collaborative learning experiences. Learners and faculty will meet in person or as a group for regularly scheduled class sessions either in their assigned classroom for the semester.
- The online modules instruction and interaction will be delivered via electronic communication, correspondence, or equivalent mechanisms, such as multimedia-enhanced content, Blackboard Ultra Collaborate/Webex with faculty and learners physically separated from each other. In this kind of approach, students can interact with course content independently or asynchronously online while collaborating and applying key concepts within the synchronous classroom.

Technology Requirements

- As a student participating in this hybrid course, or considering taking this type of course, it is expected that you have the following:
    - Internet Connection
        - Access to high speed connection such as Cable, DSL, or Satellite is recommended
            - Internet Browser Support include:
                - Internet Explorer latest version
                - Safari version latest version
                - Google Chrome latest version
                - Firefox latest version
    - Learning Management Systems
        - Blackboard is our course management system which provides access to course materials, assignments, and class discussions. You will log in to Blackboard using your George Mason username and password through this link: https://mymasonportal.gmu.edu.



        - If you have computer problems, please contact ITS Support Center httpp://itservices.gmu.edu; Email: support@gmu.edu; | Phone: 703-993-8870.
    - Access to software
        - You will need to have access to the most up to date:
            - Adobe Acrobat Reader. https://get.adobe.com/reader/;
            - Windows Media Player: https://windows.microsoft.com/enus/windows/downloads/ windows-media-player/
            - Apple Quick Time Player: www.apple.com/quicktime/download/
            - MS Word, Excel, etc.

- If you do not have the above basic requirements of skills, your success in this course may be impacted.
- Required equipment necessary for this course thus including hardware and software (e.g. MS word, etc.), speakers, microphones, or webcams, etc. are the responsibility of the student.

Course Communication

- Students are required to regularly check their George Mason email/Blackboard for announcements or updates related to the course.
- All students are expected to use their George Mason email account for all course communication. I will not acknowledge any email that is sent through other platforms.
- You should feel free to send me email if you have any questions regarding something that you do not understand. Although I will not instantly answer your e-mail, I will reply to your e-mail within 24-48 hours and if you don't get my response please feel free to remind me or ask to confirm if I have received your email.
- Please do not wait until the day of the work is due to ask questions.

Course Assignments and Grading Breakdown

Students are expected to submit high quality assignments during this course via the Blackboard. All assignments are to be completed according the dates outlined in the syllabus.

Course Assignment Requirements Description	Percentage (%)
Discussion Forum	5%
Reflection Summary	15%
GIS Application Assignments	7.5%
Exam 1	15%
Exam 2	20%
Research Paper	25%
Research Paper Presentations	10%
Peer-Review	2.5%

Grades will be assigned based on the distribution scheme below

Range	Letter Grade	Grade description	Range	Letter Grade	Grade description
93 - 100	A	Excellent	77 - 79	C+	Above satisfactory
90 - 92	A-	Very Good	70 - 76	C	Unsatisfactory
87 - 89	B+	Good with merit	60 - 69	D	Unsatisfactory
83 - 86	B	Good	<60	F	Failure
80 - 82	B-	Above satisfactory			

Discussion Forums

Class discussion is an important part of any college experience. You will have a structured opportunity to interact with each other through guided questions related to class topics. This will consist of your posting followed by comments or response, questions on your classmate's posting. Your contribution will be rated according to the scientific content, critical thinking and concept application based on the following criteria:

- *Unacceptable (0 points); poor (1 point); good (2 points) and excellent (3 points). Full a rubric, check the Blackboard.*
- *Each Discussion topic will have instructions on how to write and submit the posting and your response. Absolutely, no make-up will be given for Discussion Forum.*

Exams

There will be 2 Exams [Exam 1 and Mid-Term Exam]. The exam will be mostly objective in nature with questions that will allow students to analyze, apply, and synthesize lecture, videos and homework concepts and reading material. Exam questions will likely consist of multiple-choice, matching, fill-in the blank, and short answer questions. Exam will be taken in one of our face-to-face class meetings.

Final Research Paper

For your final research paper, you will choice to complete as individual or as a group as it fits you. You will critically examine natural resources conservation or environmental issue from various perspectives. Writing a strong researched paper requires the ability to synthesize. Therefore, evaluation of this paper will depend heavily on the depth of your research and ability to link class concepts to real world of conservation and environment operations. More details will be posted through the Blackboard.

Reflection Summary

The homework assignments designed to give students hands-on experience with the collection, analysis, and interpretation of conservation of natural resources concepts. Ultimately, this will help students practice their writing skills as you prepare for your final research paper. This assignment will be mixed bag throughout the semester: For example, summary of a research or news article; reading reflection, summarizing hands-on activities, etc. will be completed.

Policy on Late Submissions and Quizzes, Assignments

Please do not wait until the last minute **(11:59 pm – Eastern Time)** for you to complete your assignment - computers are machines and sometimes they cannot be reliable (e.g. power outage, wireless connection problem etc.) and cannot be held accountable for your excuse. This means, late assignment will be penalized - 5 points will be deducted from their possible score for each day they are late. We will work so hard to turn your assignments in a timely manner and, it is much easier when you turn your assignments to us on time.

All students are expected to:

- Review the course material and follow the course calendar.
- Work at full pace to avoid missing class activities.
- Be active participants in discussion forum throughout the course period.
- Communicate with you instructor to ask for help or clarification of an assignment or class activities.
- Respect the privacy of other classmates and the instructor in this virtual classroom.
- Re-read your responses in the discussion forum carefully before postings them.
- Express differences of opinion in a polite and sensible way.
- Keep an open mind to the constructive criticism from classmates and use it to improve your work.
    - We are in this class to share information and learning from each other.
    - By sharing and discussing each other's ideas, you will be able to examine your own thoughts and feelings hence, making the course interesting and enjoyable!
- Use good grammar and spelling in all your assignments and discussions.
- Write your messages in formal language.

Academic Integrity

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. You are therefore expected to take this course in adherence to GMU and Department standards for Academic Integrity. 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.

Plagiarism and the Honor Code

It is expected that students adhere to the George Mason University Honor Code as it relates to integrity regarding coursework and grades: To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University Community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this Honor Code: Student Members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work. More information about the Honor Code,

including definitions of cheating, lying, and plagiarism, can be found at the Office of Academic Integrity website at http://oai.gmu.edu.

Plagiarism checking services

To guard against plagiarism, written work will be checked against existing published materials. Accordingly, all materials for this course are required to be submitted electronically through Blackboard. Frequently used plagiarism detection services include: SafeAssign. If you have any questions about identifying possible plagiarism in your own work, including proper referencing practice, contact the University Writing Center http://writingcenter.gmu.edu/ or your Instructor.

Students with Disabilities

Disability Services at George Mason University is committed to providing equitable access to learning opportunities for all students by upholding the laws that ensure equal treatment of people with disabilities. If you are seeking accommodations for this class, please first visit http://ds.gmu.edu/ for detailed information about the Disability Services registration process. Then please discuss your approved accommodations with me. Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email: ods@gmu.edu | Phone: (703) 993-2474.

GMU Nondiscrimination Policy:

George Mason University is committed to providing equal opportunity and an educational and work environment free from any discrimination on the basis of race, color, religion, national origin, sex, disability, veteran status, sexual orientation, gender identity, age, marital status, pregnancy status, or genetic information. George Mason University shall adhere to all applicable state and federal equal opportunity/affirmative action statutes and regulations.

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.

Student Support Services

George Mason University has several 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. The Writing Center [http://writingcenter.gmu.edu/
iv. University Catalog: http://catalog.gmu.edu/
v. University Policies: http://universitypolicy.gmu.edu

Withdraw from a course

If for some reasons you decide not to continue with this course, students should follow the official GMU procedures and policies of course withdraw. By informing the instructor your intention to withdraw from the course or by just stop attending - "NOT SUFFICIENT" for GMU to accept the withdraw from the course. If you name still appears on the official roster for the class and you have earned a "0" grade, you will get "F" as your final grade.

Course Schedule

f2f Synchronous /Online Meeting

Week	Date	Topic Description	Textbook Chapters & Supplemental Readings	Homework | Activity Due date	Code
1	08/24	Course Overview and Introduction	Syllabus	General Introduction	
	08/26	Introduction to Natural Resource Conservation	Chapter 1	Self-introduction	
2	08/31	Historical and Current Conservation	Chapter 1	Internet Review | Referencing: In-text citations	
	09/02	Views of Natural Resource Management	The State of Nature article [BB] Land Ethic – Aldo Leopold	Carl & Lomborg – Debate	
3	09/07	Conservation Planning using GIS Application	Introduction to GIS	Discussion # 1	
	09/09	Introduction to Resource Economics & Ethics	Chapter 2	Reflection #1	
4	09/14	Externalities and Policy Interventions	Chapter 2	Discussion # 2	
	09/16	Institutions and "The Commons	The Tragedy of the Commons The Prisoner's Dilemma	Critical Thinking Qs - Textbook	
5	09/21	Determining Resource Value | and Cost-Benefit Analysis	Chapter 2 | Cost-effectiveness of conservation payment schemes for species – article [BB]	Reflection #2	
	09/23	Understanding Populations and Population Growth | Demographic Transition	Chapter 4	Discussion # ***3*** ***[Research Topic]***	
6	09/28	Population data, distribution, and Composition	Chapter 4	Critical Thinking Qs - Textbook	
	09/30	Population `Measures, & Tool: GIS & Mapping	Chapter 4 [GIS Data – BB]	Mapping – Population data [GIS	
7	10/05	**EXAM I**			
	10/07	Forest Management	Chapter 14	Research Description [One-page with Bibliography]	

Week	Date	Topic Description	Textbook Chapters & Supplemental Readings	Homework | Activity Due date	
8	10/13	Forest Management	Chapter 14	Critical Thinking Qs - Textbook	
	10/14	Land-cover data for conservation planning	Land-cover Mapping article [BB]	Reflection #3	
9	10/19	Managing Water Resources Sustainably I	Chapter 10	Critical Thinking Qs - Textbook	
	10/21	Managing Water Resources Sustainably II	Chapter 10	Discussion # ***4***	
10	10/26	Water Pollution	Chapter 11	Reflection # 4	
	10/28	Global Warming & Climate Change	Chapter 19		
11	11/02	Global Warming & Climate Change	Chapter 19	Discussion # 5	
	11/04	Climate Change Simulation	Paris Agreement	Critical Thinking Qs - Textbook	
12	11/09	Biodiversity & Habitat	Chapter 15	Reflection # 5	
	11/11	Biodiversity & Habitat | Presentation	Chapter 15		
13	11/16	**EXAM 2**			
	11/18	World Hunger: Solving the Problem Sustainably	Chapter 5	Draft – Research Paper	
14	11/23	World Hunger | Presentation	Chapter 5	Peer-Review	
	11/25	**Thanksgiving Recess [Nov 25 – Nov 29]**			
15	11/30	Creating a Sustainable System of Energy	Chapter 23	Critical Thinking Qs - Textbook	
	12/02	Presentation			
16	Exam Week	**No Final Exam**			

The instructor reserves the right to make changes to this syllabus at any time and any changes made will be communicated to the students through the Blackboard