



Contact Details for Your Instructor

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Course Details

Class Meeting Times : W | 10:30 am – 11:45 am
Location : Online Meeting Only
Credit hours : 3.00
Office Hours : M: 10:30 am – 11:30 am
T: 2:00 pm – 3:00 pm

Graduate Teaching Assistant

Name : Szandra A. Péter
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Office hours: T: 12:00 – 2:00 pm

Learning Assistant

Name : Abrianna (Brit) Lowery
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Email : alowery6@gmu.edu
Office hours: M: 3:00 – 5:00 pm

Course 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

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.

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. Outline the scientific method and distinguish fact versus opinion regarding conservation and environmental issues.
3. Evaluate and analyze the impact of resource exploitation, conservation and preservation.
4. Evaluate the science behind global warming and atmospheric carbon dioxide levels.

5. Discuss the role of GIS in conservation management and planning.
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.)

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 <http://itservices.gmu.edu>; Email: support@gmu.edu; | Phone: 703-993-8870.

Class Time:

Asynchronous:

- Monday – 10:30 am – Material posted through Blackboard in Weekly Modules & Lessons. Some Lectures will be recorded.

Synchronous:

- Class meets virtually, every **Wednesday** – 10:30 am – 11:45 am [Unless otherwise stated] Although there is some flexibility in this course, students should make themselves available to meet virtually as specified above.
- Meetings will be via Zoom. Check the Zoom Link through the Blackboard under Table of Contents “Zoom Link”.

GIS Lab Assignments

- All GIS Labs will be discussed during our Synchronous meetings. GIS Tips will also be recorded for your reference and be posted under GIS Assignments Folder through the Blackboard.

Course Assignments and Grading Breakdown

Students are expected to submit high quality written assignments during this course via the Blackboard. All assignments are to be completed according the dates outlined in the syllabus [See Tentative Course Schedule]

Course Assignment(s)	Percentage (%)
Discussion Forum	4%
GIS for Environmental Applications Lab	10%
Online Practice Quizzes	6%
Class Debate and Simulation Activities/Reflection	2.5%
Article Reviews	2.5%
Mid-Term Exam	10%
Exam 2	15%
Final Research Project [Scaffolded Assignments] – 40%	
• Topic description	1%
• Annotated Bibliography	2%
• Literature Review Summary aligned to Final Project	3%
• Draft	3%
• Peer-Review	1%
• Final Research Paper	30%
Group Oral Presentation	10%

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+	Satisfactory
90 - 92	A-	Very Good	70 - 76	C	Satisfactory
87 - 89	B+	Good with merit	60 - 69	D	Just OK
83 - 86	B	Good	<60	F	Failure
80 - 82	B-	Above satisfactory			

Exams

There will be 2 Exams [Mid-Term Exam & Exam 2]. 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 may include multiple-choice, true-false, matching, fill-in the blank, and short answer questions.

Online Discussions

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 every other week.

Requirements for Online Discussion Assignment

- Post your initial topic-related and thought-provoking comments that foster interaction and discussion.
- Then you will provide well-articulate response to a series of online discussions from you classmates to keep the discussion on-going throughout the week when the assignment is assigned. This will demonstrate your class participation as a whole including each week's assigned readings.
- The instructor and the GTA will monitor the discussion and provide comments accordingly.
- Your postings will be evaluated according to the scientific content, critical thinking and concept application based on the following criteria:
 - *Unacceptable (0 points); poor (1 point); good (3 points) and excellent (5 points). For a full 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.***

Term Research Project and Oral Project Presentation

Our class lectures/discussion will cover so many topics on geography of resource conservation. These lectures cannot go into depth on any of these topics. Therefore, you will work in teams to execute a collaborative research project addressing an issue in resource conservation and management more thoroughly. In week 3 or 4 of the semester, your team will be assisted to select a suitable topic and organization of the research process.

By completing this research project, it is expected that you will gain practical research experience such as time management, problem solving, and ability to present orally within the context of research framework. 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 regarding final research paper including grade rubric will be posted through the Blackboard.

The term project will be completed in teams of two or three

- *Regardless of the numbers per team, your research paper should not be less than 15 or so pages long (excluding title page and references) but not exceeding 17 pages. Although each team member has different academic interests, the group will plan and produce a collective output in a productive way. Each member will be required to put equal amount effort and writing. At the end of the semester, you will complete a group collaboration questionnaire indicating the role of your engagement or any shortfalls observed during the process of preparing group presentation including writing your final research paper. The instructor will advise students on the appropriate organization of the research process throughout the semester.*
- *All final papers must comply with APA standards. More details regarding the project will be posted through the Bb.*
- Previous sample term research paper topics and issues will be posted through the blackboard.
- Final project presentations will be done towards the end of the semester.
- You will have an opportunity to explain to your classmates the nature of your term project and findings.
 - Presentations will be 15 minutes long. More details on the final presentations (roster, actual time of presentation, etc.) will be discussed in class.

GIS For Environmental Applications - Assignments

Solutions to environmental problems and conservation of natural resources are many. In this course you will have the opportunity to learn some technological solutions that are of increasing value and used in many areas of resource management such as geographic information systems (GIS) and basic remote sensing. You will complete GIS Lab assignments designed to support Conservation of natural resources. Through these GIS Lab exercises, you will become familiar with geospatial tools to better manage and plan the natural resources and environment.

Late/Make-up Assignments Policy

- Due dates for all assignments are provided in the course schedule as well as the Blackboard. Unless otherwise specified all assignments are due on those dates. It is the responsibility of the student to ensure that the assignments are submitted by the established due date.
- Assignments turned in **within seven (7) days will result in a 25% deduction** for the assignment. Assignments **later than seven (7 -14 days) will result in a 50% deduction** and **after 14 days** will result into **75% deduction, then Zero grade afterwards**. Please see class schedule for detailed due dates, etc. You will be given an opportunity to use a “Life Happens Pass” for 2 assignments as described below.

A “Life Happens Pass”

You will be given a “Life Happens Pass” for two assignments. An automatic 48 hours extension will be given (i.e. past the original due date without penalty). There is no need to send an email to Instructor or GTA if using this **TOKEN** in one or two of your late assignments. Just submit your work through the Bb within 48 hours!

Incompletes (IN) Grades

Incomplete (IN) grades will be assigned only in cases of compelling and documented need, in accordance with policies set forth in the University Catalog. For details regarding incomplete grades, please visit Undergraduate Academic Affairs through this website: <https://chssundergrad.gmu.edu/other-forms/incompletes>

Course Communication & Privacy

- Students are required to regularly check their Mason email account /Blackboard for announcements or updates related to the course.
- Students must use their Mason email account to receive important University information, including communications related to this class. I will not respond to messages sent from or send messages to a non-Mason email address.
- 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.

Academic integrity:

The following statement is adapted from the Stearns Center for Teaching and Learning. No grade is important enough to justify academic misconduct. The integrity of the University community is affected by the individual choices made by each of us. Mason has an Honor Code, which you can read fully at the Office for Academic Integrity (<https://oai.gmu.edu/mason-honor-code/>). The Honor Code Pledge reads as follows:

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 for 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.

It is expected that you understand these definitions. If you have any doubts about what constitutes cheating, plagiarism, stealing, or lying in the academic context, please see your professor. *Acts of academic dishonesty in this course may be penalized with failure of either the work in question or the entire course.*

Disability Accommodations

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.

Diversity and Inclusion

George Mason University is committed to providing equal opportunity and an educational and work environment free from any discrimination on the basis of gender expression and identity, race, economic status, sex, sexuality, ethnicity, national origin, first language, religion, age and ability, 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.

Sexual Harassment, Sexual Misconduct, and Interpersonal Violence

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 Privacy

George Mason University strives to fully comply with FERPA by protecting the privacy of student records and judiciously evaluating requests for release of information from those records. Please see George Mason University’s student privacy policy <https://registrar.gmu.edu/students/privacy>.

Student Responsibilities:

- Review the course material and follow the course calendar.
- Read and check your email and Blackboard daily for any announcements, due date etc.
- Reach out to your Instructor/GTA/LA if you are stuck on something else
- Work at full pace to avoid missing class activities.
- Read the assigned chapter/pages every week and associated lecture notes. It will be great for you to read the textbook first so that you can understand the concepts discussed in the Instructor’s lecture notes.
- 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.
- 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!
- Write your messages in formal language.

Name and Pronouns Use

Mason is a community of learners of all genders and gender expressions. If you wish, please share your name and gender pronouns with me through the *Self-introduction Assignment* [Check Blackboard – Discussion Board] and indicate how best to address you in class and via email. I use [*He / him / his*] for myself and you may address me as “[MK]”, “Dr./Prof. [MK]” in email and verbally. If you are in transition of changing your name and gender pronouns, please keep me posted during the semester so that I can address you accordingly.

Recording and/or sharing class materials

Electronic video, image capture, and/or audio recording is not permitted during in-class meeting unless the student obtains permission from the instructor.

As a faculty member who will spend a lot of time creating course material for classroom use, unauthorized sharing of any of my course materials outside the class would violate important ethical standards including the Mason Honor code

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>

Tentative Course Schedule - Class meets virtually as highlighted in RED.

Week	Period	Topic Description	Textbook Chapters & Supplemental Readings	Homework Activity Due date & Time (Time is consistent - 11:59 pm)
1	1/25 - 1/29	Course Overview	Syllabus	Self-introduction due 1/29
		Introduction to Natural Resource Conservation & Management	Chapter 1	Break-out Session Discussion – due 1/25
2	2/1 – 2/5	Historical and Current Conservation	Chapter 1 Case Study: 1.1 The Earth Summit and Beyond State of the nature [Article]	Online Discussion 1: [Check Bb] <ul style="list-style-type: none"> ○ Initial Post due Wednesday ○ Comments due Sunday Participate: Class Debate on the State of Nature [SoN] <ul style="list-style-type: none"> ○ Group 1: Carl Pope ○ Group 2: Bjorn Lomborg] Submit Reflection on Class SoN Debate – 2/5
		Classification of Natural Resources	Land Ethic – Aldo Leopold [Article]	
3	2/8 – 2/12	New Tools for Resource Management (GIS & Remote Sensing) Conservation Planning using GIS Application	Chapter 1 Introduction to GIS	Online Practice Quiz # 1 due Friday – 2/10 Intro to GIS Application Assignment #1 - 2/12
4	2/15 – 2/19	Economics, Ethics, and Critical Thinking Tools for Creating Sustainable Future Tragedy of the Commons	Chapter 2 The Tragedy of the Commons [Article]	Online Discussion 2: [Check Bb] <ul style="list-style-type: none"> ○ Initial Post due Wednesday ○ Comments due Sunday Article Review due 2/19 Group Formation
5	2/22 – 2/26	The Human Population Challenge	Chapter 4	Online Practice Quiz # 2 due - 2/24 Topic description – Group – 2/26
6	3/1 – 3/5	Population data, distribution, & Composition Population Measures, & Tool: GIS & Mapping [Hands-on Activity]	Chapter 4 <i>Mid-Term Exam Review</i>	GIS Application Assignment #2 – Mapping Census Data – due 3/5 Online Discussion 3: [Check Bb] <ul style="list-style-type: none"> ○ Initial Post due Wednesday ○ Comments due Sunday
7	3/8 – 3/12	Managing Water Resources Sustainably	Chapter 10	Annotated bibliography assignment – due 3/12 Mid-Term Exam – due 3/10
8	3/13 – 3/19	Spring Recess (no classes)		
9	3/22 – 3/26	Water Pollution	Chapter 11	Online Practice Quiz # 3 -due 3/24 Literature Review Summary aligned to Final Project – 3/26

Week	Period	Topic Description	Textbook Chapters & Supplemental Readings	Homework Activity Due date & Time (Time is consistent - 11:59 pm)
10	3/29- 4/2	Forest Management	Chapter 14 Land-cover Mapping article [BB]	Using GIS to Predict Urban Forest – due 4/2
11	4/5- 4/9	Global Warming & Climate Change Climate	Chapter 19 <i>Exam II Review</i>	Online Discussion 4: [Check Bb] <ul style="list-style-type: none"> o Initial Post due Wednesday o Comments due Sunday DRAFT – Research Paper (Group) – due 4/9
12	4/12 – 4/16	Climate Change Continued Simulation Activity on Climate Change	Chapter 19 Complete Pre-Readings on Climate Change Simulation articles	Participate on Climate Change Simulation Activity & Reflection– due 4/12 EXAM II – due 4/16
13	4/19 – 4/23	Plant and Animal Extinction	Chapter 15	GIS Application Assignment #4 – Mapping Species Distribution – due 4/23 Peer Review – Assignment (Individual) – due 4/21
14	4/26 - 4/30	Final Group Presentation		
15	5/3	Final Group Presentation		
	5/10	Final Group Research Paper		
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