



Department of Geography & Geoinformation Science

GGs 307-001 | GGS 507-001 [Hybrid] Fall 2020
Geographic Perspectives for Sustainable Development

Name	:	Maction Komwa, PhD	Meeting Times	:	MW 3:00 – 4:15 pm
Office	:	Exploratory Hall, Room 2414	Location	:	Exploratory Hall 2103
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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:

Sustainability lies at the intersection of the environment, society, and economics. This course explores the concepts of sustainable development at different geographical scales (local, national, and international). We examine the applications, indicators, measurement tools of sustainable development for analysis and decision making in support of environmentally sustainable development from a geographic perspective. Case studies and problem-solving exercises will be used to stimulate learning and provide practical experience in addressing sustainable development issues.

Required Textbooks:



Exploring Sustainable Development: Geographical Perspectives.
Edited by Martin Purvis and Alan Grainger.

Additional Articles will be posted through the blackboard from time to time.

Learning Outcomes

Upon course completion, a student will be able to:

- Examine critically the 17 newly minted UN Sustainable Development Goals
- Understand the historical evolution, key theories, and concepts of sustainable development.
- Articulate the major issues affecting sustainable development and how sustainable development can be achieved in practice.
- Identify and apply methods for assessing the achievement of sustainable development
- Discover the science, technology, economics, and politics underlying the concepts of sustainability.
- Understand the implications of overuse of resources, population growth and economic growth and sustainability.
- Explore the challenges the society faces in making transition to renewable resource use.
- Analyze arguments, similarities, and disagreements in the sustainability debate.
- Develop skills that will enable students to understand attitudes on individuals, society and their role regarding causes and solutions in the field of sustainable development.
- Apply critical thinking skills to evaluate the quality, credibility and limitations of an argument or a solution using appropriate evidence or resources.
- Communicate effectively in both oral and written forms, applying appropriate rhetorical standards (e.g., audience adaptation, language, argument, organization, evidence, etc.)

Instructional Methodology

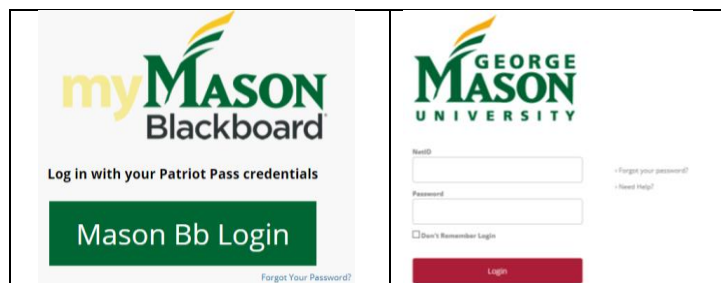
- This is a hybrid course meaning – an instructional delivery method which combines the face to face delivery, synchronous, or guided distance delivery formats. During the face-to-face instruction time, students can be engaged in realistic, collaborative learning experiences. Learners and faculty will

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
<http://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 [GGS 507]	%	Course Assignment Requirements Description [GGS 307]	%
Discussion Forum	5%	Discussion Forum	5%
Reflection Summary	15%	Reflection Summary	15%
Geospatial Application hands-on activities	7.5%	Geospatial Application hands-on activities	7.5%
Exam 1	15%	Exam 1	15%
Exam 2	20%	Exam 2	20%
Research Paper	25%	No Written Research Paper - Final Exam	27.5%
Research Paper Presentations	10%	Assigned Topic by Instructor – (Presentation)	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 three non-cumulative, *closed book* for undergraduates and 2 Exams for graduate students (NO FINALS for Grads).
 - *Each exam will contain objective (multiple-choice) and short-answer questions, Fill-in the blank questions for GGS 307 students. Grad Students will take short-answer and essay type questions.*

Final Research Paper [GGS 507 Students only]

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 your 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 Calendar: *Faculty reserves the right to alter the schedule as necessary, with notification to students.*

Week	Date	Code	Topic description	Readings	Assignments due
Week 1	08/24		Course Overview		
	Module 1		An Introduction to Sustainability		
	08/26		An Introduction – Sustainable development	Chapter 1	
Week 2	08/31		Sustainable development Timeline	Chapter 1	Discussion #1
	09/02		The Sustainable Development Goals	Chapter 1	Reflection #1
Week 3	Module 2		Geospatial Information and Sustainable Development		
	09/07		Geography and Sustainable Development	Chapter 2	Short Quiz #1
	09/09		Introduction to Geospatial Information	Chapter 2	
Week 4	09/14		Introduction to Geospatial Information	Hands-on	Discussion #2
	09/16		The Role of Spatial Scale and Sustainable Dev.	Chapter 2	Reflection # 2
	Module 3		Economic Development & Measuring Sustainability		
Week 5	09/21		Tools and Systems for measuring Sustainability	Article on Bb	Short Quiz #2
	09/23		Incomes and Measuring Well-being around the world	Article on Bb	Research Topic
Week 6	09/28		An Introduction to Life Cycle Assessment [LCA]	Article on Bb	Discussion #3
	09/30		Application of LCA	Hands-on	Reflection #3
Week 7	10/07		Mid-Term Exam		
	Module 4		Sustainable Communities, Cities and Regions		
	10/09		An introduction to sustainable communities	Chapter 6	Research Topic description
Week 8	10/13		The Patterns of Urbanization Around the World	Chapter 6	
	10/14		Case Studies on Sustainable Cities: Curitiba <ul style="list-style-type: none"> Solving our Garbage Problems in the Cities (The Case of Curitiba and Rwanda) 	Chapter 6 Articles on the Bb	Discussion #4
Week 9	10/19		Case Studies on Sustainable Cities Continued <ul style="list-style-type: none"> Amsterdam, Samsø Island, Denmark & Noto, Japan 	Articles on the Bb	Reflection #4
	Module 5		Sustainable Solutions: Food and Agriculture		
	10/21		An introduction to Sustainable Agriculture	Chapter 8	
Week 10	10/26		Sustainable Farming Systems: Different Places, Different Solutions	Chapter 8	Short Quiz #3
	10/28		How Environmental Change Threatens the Food System	Article on Bb	
Week 11	11/02		Geospatial Application for Sustainable Agriculture	Hands-on	Reflection #5
	Module 6		Growth within Planetary Boundaries		
	11/04		The Origins of the Boundary Concept	Article on Bb	Short Quiz #4
Week 12	11/09		Exam 2		
	11/11		The 9 Planetary Boundaries Presentation	Article on Bb – Chp. 11	Draft
Week 13	11/16		The 9 Planetary Boundaries continued	Article on Bb – Chp. 11	Discussion #5
	Module 7		Sustainable Business Practices		
	11/18		An Introduction: Business for the Environment	Chapter 7	
Week 14	11/23		Corporate Social Responsibility Presentation	Chapter 7	Peer-Review
	11/25		Thanksgiving Recess		
	Module 8		Climate Change and Sustainable Energy		
Week 15	11/30		Climate Change Energy and Sustainable Development	Chapter 11	Discussion #6
	12/02		Climate Change continued Presentation	Chapter 11	
Week 16			Final Exam		
		Code representation		F2f	Synchronous or guided distance instructions