

Meeting Time: Mondays and Wednesdays 3:00 – 4:15 pm
Room: Exploratory Hall 2103
Credit Hours: 3

FACULTY CONTACT INFORMATION:

Name : Maction Komwa, PhD
Room : 2414 Exploratory Hall
Office Hours: MW – 10:30 am – Noon | Thursdays – 11:00 -Noon
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Catalog 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.

Student Learning Objectives:

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.)

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

Recommended Textbook: Sustainability: A Comprehensive Foundation by Tom Theis and Jonathan Tomkin, Editors.

Teaching and Assessment

GGG 307/507 is being offered as a combined undergraduate and undergraduate course. Our weekly meetings will comprise lectures, group or student-led discussions, guest lecturers, and class videos. Active participation is required in all sessions for students to pass this course.

Assignments and Grading

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

Assessment	% (of final grade)	Assessment	% (of final grade)
Written Assignments to readings, lectures, discussions, videos etc.	10%	Written Assignments to readings, lectures, discussions, videos etc.	10%
In-Class Activities, & Participation [<i>No make-up for all In-class activities</i>]	5%	In-Class Activities, & Participation [<i>No make-up for all In-class activities</i>]	5%
Online Discussion [<i>Discuss course concepts with classmates by responding to posts</i>]	5%	Online Discussion [<i>Discuss course concepts with classmates by responding to posts</i>]	5%
Short Quizzes	5%	Short Quizzes	5%
Exam 1	15%	Exam 1	15%
Midterm Exam	20%	Midterm Exam	20%
Group Presentation	10%	Draft Paper	5%
Final Exam	30%	Final Paper	25%
No Final Paper	-	Student Presentation	10%
Total	100	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%		

Examination – There will be three in-class *closed-book* examinations [Exam I *Mid-Term* and a *final examination* for undergraduates and two-exams [Exam I and *Mid-Term Exam*] for Graduate Students.

We'll take some time to talk about study strategies and answer any possible review questions you may have a week before the exam.

- *GGG 307 students - Each exam will contain objective (multiple-choice) and short-answer questions, Fill-in the blank questions.*
- *GGG 507 students – You will need to get a Blue-book (from the Bookstore) which you will use to answer short-swer questions and essay type questions.*

In-class Simulation Activities

Additionally, there will be reading assignments from time to time derived from your textbook and assigned articles that will be posted through the Blackboard. Through the discussion/debate and simulation activities, students will have the opportunity to gain an in-depth understanding of another person's perspective on the subject matter.

Online Class Discussions – There will be weekly discussions unless otherwise stated through the Blackboard. I will lead the discussion by posting a topic related to the concepts and readings of the week. You will then follow-up with thought-provoking comments that foster interaction and discussion and demonstrate participation in class. Your original post should focus on the topic of the week. Additionally, I encourage you all to read other student's posts and make a short response to their posts. Be sure to post on time. Late posts will not be graded. Strictly - no make-up for this assignment.

Final Project

The final project is a unique opportunity for students to utilize and apply concepts learned in class. Students will design a research project that addresses a real-world development challenges involving sustainability. The focus of the research project can be any topic that will promote sustainability practices. Details of the project will be posted through the Blackboard.

- ✘ **GGS 307 students** - will complete the project in groups of 3-4. You will form a group based on the theme of your research interest for this course.
 - *No final written paper will be required - Group Presentation Only.*
- ✘ **GGS 507 students** – this will be an individual project. – Both presentation and Final Paper will be required.

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

Email Policy

GMU faculty and staff may only correspond with students through the students' GMU assigned email accounts. Emails sent from other accounts will not necessarily be answered. Course information will be shared via email. Please notify me if you would like your email to remain private and not shared with your classmates. Gmail or Yahoo accounts etc. will not be acknowledged.

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/2hWjI0y
- 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.

Tentative Schedule & Readings

Date	Topic description	Readings /Assignments
8/26	Introductions and Course Overview <ul style="list-style-type: none"> • What is Sustainable Development? 	None
8/28	The Concept of Sustainable Development <ul style="list-style-type: none"> • The Definition of Sustainable Development as an Ambiguous Compromise • The Triple P • An Introduction to Economic Growth • Questions about Sustainable Development • Timeline for Sustainable Development 	Chapter 1 In-class Activity
9/2	Labor Day – No Classes	
9/4	Geographic Perspectives and Sustainable Development <ul style="list-style-type: none"> • Overview • Geography & Pursuit of More Sustainable Development The UN Sustainable Development Topics <ul style="list-style-type: none"> • Sustainable Development Goals • The United Nations and Global Sustainability 	Read Chapter 2 Development Knowledge Platform (Topics) https://sustainabledevelopment.un.org/topics In-class Activity on SDGs
9/9	Geographic Perspectives and Sustainable Development <ul style="list-style-type: none"> • The role of Spatial Scale in Sustainable Development • Interaction between different Spatial Levels 	Read Chapter 3 <i>Guest Lecturer -GMU</i>
9/11	Linking the Local to the Global: Can Sustainable Development Work	Read Chapter 3 Group Formation
9/16	Climate Change, Energy and Sustainable Development <ul style="list-style-type: none"> • Climate Change: A Threat to Sustainable Development • Adaptation to Current and Future Climate Regimes • The cause: The greenhouse effect • The consequences: crop failure • Solutions technology and lifestyle changes Mitigating Climate Change • Political & economic instruments 	Chapter 11 Additional Reading check Blackboard <i>In-class Activity</i> <i>Class will be divided into small groups to represent different countries in readiness for Simulation Activity [9/16]</i>
9/18	Simulation Activity on Climate Change – Venue to be announce <i>EXAM I Review I</i>	Handouts to be posted on the Blackboard
9/23	Class Review of Simulation Activity <i>EXAM I Review II</i> GIS for Sustainable Agriculture <ul style="list-style-type: none"> • Overview and Modern Agriculture • Sustainable Farming: Different Places, Different Solutions • Food Miles and Sustainability 	Chapter 8 <i>In-class Activity</i>
9/25	EXAM I	
9/30	GIS for Sustainable Agriculture <ul style="list-style-type: none"> • GIS and Precision Farming Predict drought conditions. • Remote Sensing and Food Production Assessment 	Check articles through the Blackboard
10/2	<i>Guest Lecturer – Office of Sustainability [George Mason University] – changes will be communicated</i>	
10/7	Tools, Systems, and Innovation for Sustainability [Measuring Sustainability] <ul style="list-style-type: none"> • How do we measure sustainability? • Sustainability Indicators 	Check articles through the Blackboard <i>In-class Activity Group Research updates</i>
10/9	Life Cycle Assessment <ul style="list-style-type: none"> • Overview of LCA • Application of LCA The Challenges of Sustainable Supply Chain Management	Check articles through the Blackboard <i>In-class Activity</i>

Date	Topic description	Readings /Assignments
10/15	<i>Fall Break (Monday classes/labs meet Tuesday. Tuesday classes do not meet this week)</i> In-class Activity on LCA	Handout – check the Blackboard
10/16	Flaws in the fabric: People and Nature	Check articles through the Blackboard
10/21	MID-TERM EXAM	
10/23	Sustainable Business Practices <ul style="list-style-type: none"> • Corporate Social Responsibility • Corporate governance • Sustainable products and services 	Read Chapter 7 Check articles through the Blackboard Corporate Responsibility Report for Walmart, https://corporate.walmart.com/
10/28	Sustainable Business Practices Continued Review Mid Term Exams <ul style="list-style-type: none"> • Business and Environment • Corporations and Ecological Sustainability 	Read Chapter 7 <i>/ Group Research updates</i>
10/30	Making Cities More Sustainable <ul style="list-style-type: none"> • The Patterns of Urbanization Around the World • Urban Problems & Challenges • Participation in the Search for Sustainable Urban Development • Resilient cities – What makes a city sustainable, green, and resilient? 	Chapter 6 <i>In-class Activity</i>
	<ul style="list-style-type: none"> • Case Study: Curitiba Sustainable city • Case Study: Ankara Landfill Gas to Energy 	Chapter 6 <i>Watch Curitiba Sustainable City Video</i>
11/4	<i>Guest Lecturer – Environment and Sustainability – City of Fairfax or The World Bank - changes will be communicated</i>	
11/6	The concept of Planetary Boundaries <ul style="list-style-type: none"> • Growth Dynamics • Case of Energy • Population Dynamics 	Rockstrom et al., “Planetary Boundaries: Exploring the Safe Operating Space for Humanity” Steffen, "How defining Planetary Boundaries can Transform our Approach to Growth”
11/11	Planetary Boundaries continued	Watch Video – Staying within the boundaries https://youtu.be/Y19IMrmmhU8
11/13	Group Project Research Individual Project Research and Preparation	
11/18	<i>Group Presentation -I</i>	
11/20	<i>Group Presentation -II</i>	
11/25	<i>Group Presentation - III</i>	
11/27	<i>Thanksgiving Recess [No classes]</i>	
12/2	Future Perspectives: Developing Sustainable Development Chapter 13 <i>Group Presentation -IV</i>	
12/4	Final Exam Review	
12/16	<i>Final Exam [GGS 307 Students Only] - [1:30 pm – 4:15 pm]</i>	

The schedule presented below is subject to change at the discretion of the instructor. Every effort will be made to announce changes in advance; however, students are responsible for changes. Students should regularly check the course Blackboard account as information related to the class including schedule and assignment changes will be communicated there or through the GMU email.

Instructions on ALL Assignments | Quizzes | In-Class Activities and due dates check Blackboard >> Assignment Folder >> Due dates at a-glance

The instructor has selected additional required readings that are placed under “Content” through the Blackboard [\[https://mymasonportal.gmu.edu\]](https://mymasonportal.gmu.edu).