

GGG 399 - A01 | GGS 590 – A02: Global Food Security, Society & Environment

Instructor information:	:	Maction Komwa, Ph.D. Exploratory Hall – Room 2210 Tel: 703-993-5646 email: mkomwa@gmu.edu
Office hours	:	Monday [1:30 pm – 3:00 pm] or by appointment (through email) --- any changes to my office hours will be communicated to all students in class or through email
Class time Days	:	3:45 pm – 6:45 pm M W F
Location	:	Exploratory Hall L004

Course description

The purpose of this course is to prepare students with specific capabilities required to address global food security issues related to society and environment. The course is designed with an emphasis on developing a conceptual understanding of the problem, exploring potential solutions, and examining policy responses related to agriculture, natural environment, and society of different traditional experiences through the application of quantitative analysis (statistics), remote sensing, GIS technology, and other allied disciplines. After finishing this course, students should be equipped with critical thinking and scientific understanding of maintaining the multidimensional phenomenon of food security for the present and future generations.

Course Format: The course includes lectures, assigned readings, discussion, class activities, and guest speakers

Learning Objectives:

Upon finishing this course. It is expected that students will be able to:

- Examine the social, economic and environmental dimensions of agriculture production.
- Explore the concept of food security in all of its dimensions including production, accessibility, stability and utilization in different geographic regions.
- Develop research and statistical skills in analyzing food security using household survey data
- Relate the technological advances and emerging issues in food systems and their impact on environment and society.
- Evaluate the role of various national and international agricultural research institutes in capacity strengthening and sustainable food production.
- Examine the challenges associated with human global population growth and food security.
- Evaluate potential impacts of climate change on global food security and sustainability.
- Apply theoretical knowledge and skills on the application of satellite remote sensing, GIS based technology in order to develop crop area estimation procedures and yield forecasting models.
- Develop skills to understand value chains of agricultural commodities and their role in food security and poverty alleviation.
- Explore food security policies and interventions by key social institutions and other stakeholders.
- Analyze cultural and social factors of food consumption and their impact on food security.

- Develop higher cognitive skills — Critical thinking, creativity, analytical ability
- Develop and demonstrate effective communication skills — Written, oral, interpersonal, group.

Required Textbooks:

No textbook is required

Text Discussion Leaders:

There will be reading assignments from time to time derived from assigned articles [Blackboard]. Each student will serve as a Forum Discussion Leader of any article that might be assigned by the Instructor. Students will identify key issues and subjects which they believe should be considered by the class in a conversation about food security, society and environment. The Forum Discussion Leader will be required to:

- Succinctly synthesize the material with a brief opening oral presentation (including a set of slides highlighting the most important two or three points of the articles under consideration)
- Develop two or three questions intended to stimulate class discussion after the brief opening oral presentation.

Assessments and Grading:

How your grade is calculated:

Assignment Description	Percentage
2 Reading summaries	10
Food security forum [details to be given in class]	5
2 Analysis Assignments	20
1 Take –home Exam	20
Final Paper	30
Presentation	10
Your level of class engagement and participation will be evaluated by Instructor at the end of the semester	5
Total:	100

GRADING

Letter grades of **A**, **B**, **C**, **D**, and **F** will be assigned for completion of this course based on the cumulative score of all evaluated work. Rather than assign individual letter grades for each project listed above, they will be evaluated on a percent basis from which the final, total, score will be determined.

% Numeric Value	Letter Grade	% Numeric Value	Letter Grade
98-100	A+	86-89	B+
93-97	A	83-85	B
90-92	A-	80-82	B-
76-79	C+	60-68	D
71-75	C	<60	F
69-70	C-		

Analysis Assignment [both undergraduate and graduate]

For analysis assignment you will be required to collect and analyze data, submitting analysis and a short summary of 1-2 pages of your finding. Instructor will provide necessary tools for this assignment.

Final Research Project

Students will simulate how household food security is measured in a country of their choice. Instructions for this assignment will be given in class and they will be slightly different from graduates and undergrads students.

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.

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>).

Note:

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 and Reading Assignments and due dates

Date	Topic Description	Assignments due
PART I [Concepts &]		
5/18	Introduction and overview of the course Why Environment and Food?	
5/20	Understanding Food Security Defining and measuring food security and insecurity	
5/22	Determinants of household food insecurity	
5/25 - 27	Food Security Assessment Remote Sensing & GIS tools Baseline Food Security Assessments	Reading Assignment
5/29	Climate change and food security: How climate change impacts food production and how food production impacts climate change Guest Speaker	
6/01	The agro-ecology of Agricultural Production	Analysis I
6/03	Food security policies and the role of institutions in food security	
6/05	Comparative analysis of food security development programs in Africa Guest Speaker	Reading Assignment
6/08	Commodity value chain analysis for policy making	Take Home Exam
6/10	Sustainable Agri-Food System & Practices	
6/12	Environmentally sound and economically viable agriculture through small and marginal farmers' institutions in Andhra Pradesh and Bihar, India Guest Speaker	Analysis II
6/15	Population Growth and Global Food Production Systems The challenge of feeding 9.6 billion people by 2050	
6/17	Global challenges for food systems	
	Biotechnology, biofuels, labeling, food movements The food-climate-energy-water-poverty nexus	Final Paper
6/19	Final Presentation	

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).