BIOD-726-DL1:
Threats to Global Food Security

Fall 2019
Online
3.0 Credits

Schar School of Policy and Government
George Mason University

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Office Hours: Virtual office hours via Blackboard Discussion Board, or by appointment (for in person)

Course Description:
The purpose of this course is to develop a comprehensive understanding of all the fundamental elements of global food security and analyze threats to global food security including those related to climate change and environmental degradation, animal and plant diseases, access to clean water, agricultural terrorism, and antimicrobial resistance. We will address national and global health, economic, social, and ethical impacts of these disruptive forces. We will also examine strategies for protecting and enhancing the security of global food production and supply systems. In the final analysis, our goal is to gain insight into the interrelationship between national security and food security and develop an understanding of policies and programs necessary to achieve global food security through ensuring availability, access, utilization, and stability to adequate nutritious food for all people.

Background: Food insecurity is one of the most critical problems confronting the global community in the 21st Century. Despite numerous national and international efforts over the past 60 years, its elimination remains elusive due to a complex array of environmental and human factors. Despite the existence of an adequate supply of food to feed the global population at this time, the absence of effective political will at the national and international
level is perhaps the most significant obstacle to achieving global food security. Today, over 800 million people are chronically malnourished while millions more are suffering from acute malnutrition. A growing number of national conflicts throughout the globe over the past decade have significantly contributed to the increased number of individuals displaced and acutely malnourished. Hunger is number one on the list of the world’s top 10 health risks. It kills more people every year than AIDS, malaria and tuberculosis combined. Missing out on essential nutrients in 1000 days from conception to a child’s second birthday translates into irreversible damage to cognitive and physical development. Global food insecurity is a major foreign policy issue affecting national security and economic development at an unprecedented level. The global community needs to increase food production by at least 60 percent by 2050, all while facing increasing pressures on land and water resources from a growing population and changing climate. Insufficient access to adequate water, limited arable land, significant food losses and waste, and disputed land rights further exacerbate food insecurity. Concerns over food safety resulting from contaminated processes or terrorist interventions at the farm and market level provide a significant threat to global food security.

Objectives:

This course is a broad based cross-cutting interdisciplinary review of the causes and impacts of global food insecurity. It is designed to provide a comprehensive perspective on food insecurity as a multi-dimensional challenge to the global community. We will address why global food insecurity is so difficult resolve despite the multitude of resources available to society. The key objectives of this course are to:

1) Define the nature and scope of global food security from an interdisciplinary perspective (human rights, gender, age, health, agricultural policy, nutrition, land rights, water access, governance, finance, economic development, conflict, and national security);

2) Assess food security’s impact on people, nation states, and the international community;

3) Review and examine the development and implementation of U.S. Government and multilateral policies and programs designed to achieve global food security;

4) Evaluate the relationship between governments, multilateral institutions, non-profits, and profit oriented companies in addressing global food security issues;

5) Analyze the relationship between food security and national security;

6) Review and analyze food safety issues, policies, and programs at the national and international level involving contaminated agricultural crops and terrorist threats to the food supply;
7) Examine challenges confronting the attainment of global food security (lack of political will, climate change, urbanization, inadequate agricultural production, and post-harvest food losses).

8) Develop an efficient, effective, resilient and sustainable U.S. global food security policy and program.

**Required Reading for the Semester**

“The Elusive Goal of Eliminating Global Hunger: Progress and Challenges”, June 14, 2014; World Medical and Health Policy; Volume 6, Issue 2; pp 158-165.


**Recommended Readings**

For further reading, please see “Additional Readings for Discussion Board Participation” in Blackboard under “Syllabus and Additional Resources”

**COURSE FORMAT AND PROCESS**

This course is an online version of a traditional graduate seminar. That means you will not be listening or watching me lecture very much. Instead, the course structure encourages and requires you to spend a good deal of time assessing and responding critically to each reading and to one another’s arguments.

This course is also “asynchronous,” meaning that we will not be meeting (virtually or in person) at the same time. Instead, everyone can log in to Blackboard to listen to the lectures and make their posts to the Discussion Board when it is convenient for them (as long as they do so by the deadlines for each assignment).
The course is divided up into 8 modules, each module is two weeks long (except for the last module). The flow of the course will be as follows:

- You will typically watch a brief video (or two).
- You will read the week’s assigned readings.
- In each module, you will first participate in the Discussion Board in response to that module’s question. Your original post will be due on the first Friday of that module (by 11:59pm ET, minimum 100 words, must include a citation from readings in that module). Your comment on the original post of a classmate will be due by the first Sunday of that module (by 11:59pm ET – 50 words minimum, must include a citation from one source outside of the module readings).
- All the Reading Analysis essays will be due by 11:59pm ET on the last Sunday of the module, and you will need to complete all the required readings for that module to address all the analysis points in your essay. The essay should be around 500 words long (one single spaced typed page).
- All details for the Discussion Board prompts and Reading Analysis essays are available in the Modules in Blackboard.

**INTERACTION**

We will be able to interact several different ways this semester. First, feel free to post questions to the Ask the Instructor section of the Discussion Board if you can find the answer in the Syllabus or on Bb. Second, for communications that you want to be confidential or are directly related to your research proposal or research paper that would not be relevant to the rest of the class, please email me with your question. I can respond via email or we can set up a time to talk on the phone. I will try to respond to all emails within 1 business day. Third, I will be available to meet in person at my office by appointment.

**BLACKBOARD**

Access to MyMason and GMU email are required to participate successfully in this course. Please make sure to update your computer and prepare yourself to begin using the online format BEFORE the first day of class. Check the IT Support Center website. Navigate to the Student Support page for help and information about Blackboard. In the menu bar to the left you will find all the tools you need to become familiar with for this course. Take time to learn each tool. Make sure you run a system check a few days before class. Become familiar with the attributes of Blackboard and online learning.

To login in to the course:

2. Login using your NETID and password.
3. Click on the ‘Courses’ tab.
4. Click on BIOD-726 (Fall 2019)

Technical Help

If you have difficulty with accessing Blackboard, please contact the ITU Support Center at 703.993.8870 or support@gmu.edu

If you have trouble with using the features in Blackboard, email courses@gmu.edu

UNIVERSITY POLICIES & INFORMATION

Academic Integrity
Students must be responsible for their own work, and students and faculty must take on the responsibility of dealing explicitly with violations. The tenet must be a foundation of our university culture. [See http://academicintegrity.gmu.edu/distance].

Honor Code
Students must adhere to the guidelines of the George Mason University Honor Code [See http://oai.gmu.edu/the-mason-honor-code-2/].

Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.

MasonLive/Email
Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account. [See https://masonlivelogin.gmu.edu].

Patriot Pass
Once you sign up for your Patriot Pass, your passwords will be synchronized, and you will use your Patriot Pass username and password to log in to the following systems: Blackboard, University Libraries, MasonLive, myMason, Patriot Web, Virtual Computing Lab, and WEMS. [See https://password.gmu.edu].

Responsible Use of Computing
Students must follow the university policy for Responsible Use of Computing. [See http://universitypolicy.gmu.edu/university-policies/computing/].

Students with Disabilities
Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See http://ods.gmu.edu].
University Libraries
University Libraries provides resources for distance students. [See http://library.gmu.edu/distance].

Writing Center
The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing. [See http://writingcenter.gmu.edu]. You can now sign up for an Online Writing Lab (OWL) session just like you sign up for a face-to-face session in the Writing Center, which means YOU set the date and time of the appointment! Learn more about the Online Writing Lab (OWL).

Counseling and Psychological Services
The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students’ personal experience and academic performance [See http://caps.gmu.edu].

Family Educational Rights and Privacy Act (FERPA)
The Family Educational Rights and Privacy Act of 1974 (FERPA), also known as the "Buckley Amendment," is a federal law that gives protection to student educational records and provides students with certain rights. [See http://registrar.gmu.edu/privacy].

Other Considerations
If there are any issues related to religious holidays, please inform the instructor the first week of class. [See http://ulife.gmu.edu/calendar/religious-holiday-calender/]

Assignments and Evaluation

Class participation 300 points total (5 Discussion Board prompts (modules 2-6): 100 points total, 20 points each; 5 Reading Analysis essays; 200 points total, 40 points each)

Graduate seminars traditionally require you to be prepared to discuss the readings and actively participate in discussion. Online course are no different; we just measure participation a bit differently.

For full participation credit students should participate in the Discussion Board for each module, and complete the Reading Analysis essay for each module as well. Participation will be evaluated in terms of use of critical thinking skills, timeliness, volume, and overall quality of contributions to class discussion.
Students are not expected to have an extensive background on global food security issues. However, students are expected to share their thoughts and insights with the class after watching all required videos and completing reading assignments for each module.

**Research Paper (all 3 phases) = 200 points total (Proposal 25 points, Summary Overview 25 points, Final Research Paper 150 points)**

The Research Paper has to address an issue related to global food security and national security. The paper should be a cross-cutting interdisciplinary analysis of a critical global food security problem drawing conclusions, and making critical policy and program recommendations. The assigned and suggested readings will provide a foundation for your bibliography, but you are expected to find additional sources. Scholarly and academic books and journals articles and reports by reputable think tanks are preferred although for more recent events media reports are acceptable. Reports and studies published online are acceptable but websites that simply aggregate information from other sources (such as Wikipedia) are not acceptable.

Research proposal - due by 11:59pm ET on 9/29, worth 25 points. The research proposal (minimum 2 pages) must be uploaded to Blackboard as a Word file labeled as Last Name_First Name_Proposal. The proposal must include; a clear statement of your research question or topic, how you will conduct your research, a short bibliography of sources you plan on using - minimum of 10 sources. Students are strongly encouraged to make an appointment with me prior to submitting the proposal to discuss the topic in person, over the phone, via email. Please email me at pthoma15@gmu.edu to make the necessary arrangements.

Research paper summary overview - due by 11:59pm ET on 11/3, worth 25 points. The summary overview (minimum 2 pages) must be uploaded to Blackboard as a Word file labeled as Last Name_First Name_Overview. The overview must include; an overview of the whole paper - include elements of the paper (identification of problem, findings, conclusions and recommendations), include any questions that you have about writing the final draft of the paper, single spaced (approx 500 words).

Research paper final draft - due by 11:59pm ET on 12/11, worth 150 points. The final draft of the Research Paper should be submitted as a Word File via Blackboard labeled as Last Name_First Name_Research Paper. The paper must be; double-spaced with 12-point font, 1-inch margins, numbered pages, use the Chicago Manual of style for footnotes, include the bibliography page, be approximately 3,000 words (12 double-spaced pages), and use at least 10 authoritative, reputable sources.
## A Note on Work Load

The reading load for this course is heavy. I appreciate that many students work demanding jobs and that it may be difficult to complete all of the reading for each week. The goal for the weekly workload for this course is 8 to 10 hours, with about 75% of your time devoted to reading and 25% of your time devoted to writing. That means you should plan to be reading somewhere between 6 and 7.5 hours each week. All students are expected to complete their written assignments on time. In the event a delay becomes necessary, students must contact the instructor immediately to request an extension. Frequent tardy assignments may have an adverse effect on your final grade.

### CLASS SCHEDULE

<table>
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<tr>
<th>MODUL E</th>
<th>WEE K</th>
<th>TOPICS</th>
<th>READINGS &amp; VIDEOS</th>
<th>ACTIVITES/ASSIGNAME NTS DUE DATES</th>
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<tbody>
<tr>
<td>Module 1</td>
<td>8/26-9/1</td>
<td>Define the nature and scope of global food security from an interdisciplinary perspective</td>
<td><strong>Video:</strong> “Are We Ready to End World Hunger” by Chase Sova</td>
<td>Blackboard Discussion: In order for everyone to know each other a little better, please post on the discussion board a short introduction of yourself by 11:59pm ET, Friday August 30, 2019.</td>
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|         |        |                                                     | **Readings:**
<p>|         |        |                                                     | Phil Thomas’ article, “The Elusive Goal of Eliminating Global Hunger: Progress and Challenges”, George Mason University’s Spring 2014 issue of World Medical and Health Journal; pp 158-165. |                                  |
|         |        |                                                     | PDF Course Overview of GMU BIOD 726 Fall 2019 Global Food Security                                      |                                  |
|         |        |                                                     | GAO Highlights International Food Security May 2008                                                  |                                  |
|         |        |                                                     | GAO Highlights Global Food Security March 2010                                                       |                                  |
|         |        |                                                     | GAO Highlights Global Food Security Sept 2013                                                        |                                  |
|         |        |                                                     | GAO Highlights Food Loss and Waste June 2019                                                         |                                  |
| 9/2-9/8 | Videos: October 10, 2018 International Food Policy Research Institute (IPRI) videos; Address by Vimlendra Sharan, and panel discussion on the Key Findings of Food and Agriculture Organization’s (FAO) 2018 State of Food Security and Nutrition in The World Report | Reading Analysis: Define global food insecurity and food security, its critical dimensions, its nature and scope. In reviewing the reading materials and video for the past two weeks, please assess the multiplicity of environmental and human causes of global food insecurity. Do you believe Thomas and Conway |
| | Readings: USAID Feed The Future PDF | |</p>
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<tr>
<th>Module 2</th>
<th>9/9-9/15</th>
<th>Assess the impact of food security and international food assistance on people, nation states, and the international community</th>
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|          |         | **Videos:**
|          |         | Types of USAID Emergency Food Assistance
|          |         | Chase Sova, UN World Food Program (WFP) on the Link between Food Insecurity and Global Instability
|          |         | **Readings:**
|          |         | BIOD 726 (FA19) US International Food Aid Analysis Outline
|          |         | **Blackboard Discussion:**
|          |         | How would you describe the relationship between global food security and international food assistance? What are the key issues related to hunger and food instability? Why is conflict such a central issue? Does food insecurity address the most significant causes and effects of global hunger and food insecurity? What are the weaknesses in Thomas’ Journal article and Conway’s text in analyzing global food insecurity? What are the most significant impacts of global food insecurity? Given the multiplicity of causes and effects of global food insecurity, do you believe food insecurity is a global national security problem? What are the major barriers to eliminating global hunger and achieving global food security? If you were President of the United States, would you be concerned about global hunger? As President how would you address the multiple dimensions of global hunger and food insecurity? If you were the UN Secretary General what would be your policy and plan of action to address global hunger and achieve food security? **Due: 9/8 11:59 pm ET**
| 9/16-9/22 | Readings:  
GAO Highlights International Food Assistance May 2009  
GAO Highlights International School Feeding May 2011  
GAO Highlights World Food Program September 2012  
GAO Highlights International Food Aid March 2014  
GAO Highlights International Food Assistance Oct 19, 2017  
CRS Overview of US International Food Assistance Dec 6, 2018  
US GAO Key Issues – International Food Assistance  
(Textbook) Christopher B. Barrett and Daniel G. Maxwell; “Food Aid After Fifty Years: Recasting Its Role”; 2005; pp 1 – 121 | Reading Analysis:  
Describe the interrelationship between the current global humanitarian crisis, global food insecurity, and international food assistance. What are the critical global factors affecting this crisis as identified and analyzed in WFP USA’s December 2017 Report on Winning The Peace: Hunger and Instability. In your opinion, what is the single most significant causative factor driving this humanitarian/food security crisis? How would you remedy the crisis? What tools would use? After reviewing the GAO 2007 Food Aid Report and its 2008 Global Food Security Crisis Report, and the first half of Chris Barrett’s Book on Food Aid After Fifty Years, please explain the interrelationship between international food aid and food security. What are your insights on the efficiency and effectiveness of US and other donor international food assistance? |
| Module 3 | 9/23-9/29 | Review and examine the development and implementation of multilateral policies and programs designed to achieve global food security | Video: Feed the Future – Leadership and Partnership Make a Difference
Readings: Christopher B. Barrett and Daniel G. Maxwell; “Food Aid After Fifty Years; pp 122-253
“Food Security Governance: Empowering Communities, Regulating Corporations”, by Nora McKeon; 2015; Routledge, ISBN: 978-1-415-52910-5 (pbk); pp. 1-88 | Blackboard Discussion: Food Aid, if managed correctly, can contribute to food security in vulnerable countries. The second half of Barrett’s and Maxwell’s book focuses on the interrelationship between food aid and food security, management related issues, and the need to reform food aid into a more efficient, effective, and viable food security tool. The first half of McKeon’s book on Food Security Governance: Empowering Communities, Regulating Corporations, starts with a description of the dynamics of food security governance focusing on the historical evolution of the global food security system. What is your solution for dealing with critical elements of these topics focusing on the operation of these dynamic systems?

Original post due by 9/27 11:59 pm ET
Comment on a classmate’s post due by 9/29 11:59 pm ET

***2-page research proposal describing the topic of your paper and
| Module 4 | 10/7-10/13 | Evaluate the relationship between governments, multilateral institutions, non-profits, and profit oriented companies in addressing global food security issues | Video: “Why is Governance Important for Food Security” by Fiona Smith | Blackboard Discussion: McKeon provides a detailed description and analysis of the global food security system. She focuses on the operation of food security systems and the key actors in the system including farmers, local and national governments, donor governments, multilateral institutions, NGO’s, the private sector and how they contribute to operation of the global system. The complexity of the national and global food system is a complex challenge. |
### “Advancing Global Food Security in the Face of a Changing Climate”

A New Climate for Peace: Taking Action on Climate and Fragility Risks (just the executive summary)

FAO Zero Hunger Initiative – UN Sustainable Development Goals

security systems is a daunting challenge and raises many questions related to efficiency and effectiveness of the system. Her analysis attempts to clarify the many complex and contradictory aspects of the global system and point a way forward towards development of a more efficient and effective global food security system. Do you believe her analysis is on target? If not, what do you think should be added/changed?

**Original post due by 10/11 11:59 pm ET**  
**Comment on a classmate’s post due by 10/13 11:59pm ET**

| 10/14 - 10/20 | **Readings:**  
| Article “Secretary General's High Level Task Force on Global Food and Nutrition Security”  
| Report by HLPE on Food Security and Nutrition, "Multi-stakeholder partnerships to finance and improve food security and nutrition in the framework of the 2030 Agenda" (read the extract)  
| Report by HLPE on Food Security and Nutrition, "Price volatility and Food Security" (read the extract)  
| Read the Introduction and Background of the World Food Security report.  
| Familiarize yourself with all info on the CFS website above in the "About" tab. |

| **Reading Analysis:**  
| McKeon discusses what is necessary to build a better global food security system. Identify the key elements and actors in the global food security system? How can food security governance be enhanced to achieve global food security in the 21st century? How can political will be developed to achieve the ZERO hunger goal by 2030? |

| **Due: 10/20 11:59 pm ET** |

| Module 5  
| 10/21 - 10/27 | Analyze the relationship between food security and |

| **Video:**  
| Book launch of "Mass Starvation: The History and Future of Famine". |

| **Blackboard Discussion:**  
| The interrelationship between Food Security and National Security is clearly an important global issue. |
| national security | **Readings:**  
(Textbook) "Mass Starvation: The History and Future of Famine," by Alex de Wall; pp 1-154  
Pages i to v of the 9/22/15 report by ICA (Intelligence Community Assessment) on Global Food Security.  
Executive Summary in the February 2017 Report by CSIS (the Center for Strategic and International Studies) "Recurring Storms" |
| It is one of the most difficult, complex, and compelling issues confronting national governments, NGO’s (non-Governmental Organizations), and the international community in the Twenty-First Century. As national conflicts occur at a rapidly increasing rate throughout the globe over the last decade and the implications for these conflicts to proliferate into a major global conflict dawns on the horizon, the interrelationship between food security and national security has become all the more evident. Conflict and hunger seem to be inextricably intertwined in South Sudan, Somalia, Syria, Yemen, and a series of fragile and failed states. Central to addressing the interrelationship between food security and national security is the different and often conflicting goals, objectives, and operations of military and humanitarian organizations. Can food security and national security can be integrated in a manner that diminishes and/or prevents both hunger and conflict at a national and international level? |

**Original post due by 10/25 11:59 pm ET**  
**Comment on a classmate’s post due by 10/27 11:59pm ET**
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<tr>
<th>Date</th>
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<th>Video</th>
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| 10/28 - 11/3 | **Panel 1 – The Interrelationship between Global Food Security and National Security**<br>**Readings:**<br>(textbook) "Mass Starvation: The History and Future of Famine," by Alex de Wall; pp 155-203<br>STIMSON report Roundtable II Final Sept 28, 2017<br>STIMSON report Final Second Roundtable<br>Fourth Annual Summit on Global Food Security and Health<br>The event agenda for the 4th Annual Summit on Global Food Security and Health (2017).<br>***Research Paper Summary Overview due by 11/3 11:59pm ET ***<br>The summary overview (minimum 2 pages) must be uploaded to Blackboard as a Word file labeled as Last Name_First Name_Overview<br>The overview must include:<br>  ● an overview of the whole paper - include elements (identification of problem, findings, conclusions and recommendations)<br>  ● include any questions that you have about writing the final draft of the paper<br>  ● single spaced (approx 500 words) | **Washingt...**<br>CRS - report on "Federal Food Safety System: A Primer."
European Parliament - Food Safety Policy and Regulation in the U.S. | The U.S. Government regulated food safety system is purported to be the best in the world. Multiple U.S. Government agencies share in the responsibility of protecting the population from tainted, contaminated, and generally unsafe food. These agencies include the Department of Health and Human Service’s Food and Drug Administration (FDA), the U.S. Department of Agriculture’s Food Safety and Inspection Service (FSIS),... |
<p>| 11/11 - 11/17 | Readings: GAO Highlights Biodefense October 2017 &quot;Federal Efforts to Develop Biological Threat Awareness&quot; | Reading Analysis: Based on your assessment of assigned readings on food safety, agro-terrorism, and bio-terrorism, does the U.S. food safety system work? Does it prevent the production and distribution of tainted and |</p>
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<th>Date</th>
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<tr>
<td>11/25 - 12/1</td>
<td><strong>Readings:</strong> Textbook “The Reproach of Hunger: Food Justice, and Money In the Twenty-First Century”, by David Rieff, please read pages 210-336</td>
</tr>
<tr>
<td>Module 8</td>
<td>12/2 - 12/11</td>
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</table>
|              | **Research Paper due by 12/11 11:59pm ET ***
The final draft of the Research Paper should be submitted as a Word File via Blackboard labeled as **Last Name_First Name_Research Paper.**
The paper must be:
- double-spaced with 12-point font
- 1-inch margins,
- numbered pages
- use the Chicago Manual of style for footnotes
- include the bibliography page
- approximately 3,000 words (12 double-spaced pages)
- at least 10 authoritative, reputable sources |