

Syllabus–Fall 2017

The Nexus of Food & Nutritional Security, Hunger and Sustainability

Texas A&M University- HORT 689 (Special Topics)
Ohio State University- FST 7194
Purdue University- YDAE 59100
Texas A&M Kingsville- PLSS 6390

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Site Coordinators:

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Purdue University- Dr. Neil Knobloch; Phone: (765) 494-8439; nknobloc@purdue.edu
Ohio State University- Dr. Jessica Cooperstone; (614) 292-2843; cooperstone.1@osu.edu
Texas A&M Kingsville-Dr. Greta Schuster (361) 593-3719 greta.schuster@tamuk.edu

Venue:

Texas A&M University, College Station-Room: CTQ 120B
Purdue University, West Lafayette: Stewart Center, Room G52
Ohio State University, Columbus: Parker Food Science & Technology Building, Room 120
Texas A&M University Kingsville (Human Sciences Building, Room 111), Citrus Center
Weslaco (TTVN Room)

Lecture: Tue and Thu 2:00 to 3:15 P.M CST

This course will be offered simultaneously on TTVN (Trans Texas Video Network) to four different locations originated from Texas A&M University.

Office Hours: Dr. Bhimu Patil. Arranged by appointment and through phone and email.
Tue: 4:00 -5:00 PM; Office Location: Centeq Suite A120.

Course Description: The Nexus of Food & Nutritional Security, Hunger and Sustainability **(3-0)**.
Credit 3. Provides recent scientific advances in knowledge of food & nutritional security, hunger and establishes their relationship to sustainability and food systems. The course will broaden student education by engaging a diverse group of students to think critically about food sustainability issues and encourages students to study agricultural sciences by showing students the local relevance and global importance of these issues. Moreover, experienced, multidisciplinary faculty will provide key real-world perspectives and cutting edge teaching tools coupled with experiential learning opportunities

A unique integrated blend of conventional, worldwide web and distance education through TTVN will be used to stimulate and develop thought provoking and critical thinking abilities among students. Prerequisite: Approval of Instructor

Learning Outcomes: The student will gain advances in knowledge of food and nutritional insecurity issues and causes of hunger. They will link relationship among food& nutritional security, hunger and sustainability.

Learning Objectives:

Upon completion of the course, the students enrolled in the course should be able to:

- Identify contextual variables to define the problem they are attempting to solve
- Explain key indicators of food and nutritional security
- Analyze the problems and relevant applications at local, regional, national, and global levels
- Solve problems using interdisciplinary thinking and explain relevant applications and synergistic benefits of interdisciplinary thinking
- Develop teamwork skills by interacting with other disciplines

Course Outline:

1. Introduction: Global perspectives (2.30 hr)
2. Food security and nutrition indicators and context analysis (2.30 hr)
3. Framing the problem, framing the course (1.15 hr)
4. Experiential learning and current topics (1.15 hr)
5. Food malnutrition and disease prevention (2.30 hr)
6. Food-water-energy security under climate change (3.45 hr)
7. Food production environment and soils (1.15 hr)
8. Sustainability of alternative fruits and vegetable production to increase food security (1.15 hr)
9. Conflict migration and human capital (2.30 hr)
10. Nutritional education and communication (1.15 hr)
11. Innovations for food security, hunger alleviation & sustainability (1.15 hr)
12. Agriculture, food security & sustainability intensification: can we feed the world? (1.15 hr)
13. The seasonality of life for smallholder farmers & their families in poor, agrarian societies (1.15 hr)
14. African indigenous vegetables & food security: An international NGO perspective (1.15 hr)
15. Sustainability of the food supply chain (1.15 hr)
16. Mid Term Reflection (1.15 hr)
17. Experiential Learning (7.30 hr)
18. Experiential Learning Reflection (1.15 hr)

Experiential Learning: Because the pilot course will implement a suite of *three hands-on learning activities*, every student will be part of an experiential learning model that emphasizes expanded learning outside the classroom discussion setting.

First hands-on activity. Teams of 3 to 4 students will conduct a food security assessment by defining the community profile and engaging in a place-based learning activity. Students will document the findings and present the information to the experts in the following activity as well as include the presentation as part of e-learning case study in **activity 3**.

The four key areas will be explored through the following place-based examples.

Nutrition – attend the local basic training for the *National School Lunch Program* to understand its operation. Combine this with personal study on how nutritional security is related to reduced risk of chronic disease later in life.

Sustainability – visit a *local or university farm* that uses sustainable agricultural practices; learn about current techniques used to increase sustainability.

Hunger – visit a *local food bank* to see how they are using local foods to provide fresh produce to their customers

Human Impacts – shadow an *Extension Nutrition Educator* to see how they disseminate health/nutrition information to the public.

Second hands-on learning activity (students need to prepare a short video presentation). Based on the food security assessment conducted in the local community by each team, a video must be prepared for **activity 2**. Students will present the PowerPoint from **activity 1** to a professor, researcher, or extension specialist and ask about their expert opinions on each key area: nutrition, sustainability, hunger, and human impacts. Students then will analyze the problem and write up a story to present the community problem based on the real experience and the opinions from the experts. This story will be depicted in the video.

The products from this activity will be used to introduce the food security problem in the e-learning case study for undergraduate students in **activity 3**.

Third hands-on learning activity. In this activity, students will develop an e-learning case study that can be used in the undergraduate courses. The purpose of the e-learning tool is to help undergraduate students learn about the present state of food security issues that exist in the local community and some proposed solutions in order to continue working on these issues. Students will develop interactive learning modules using the information from the course and from the previous activities.

Guest Lectures: Many topics are presented by the recognized authorities in the field.

Text: No specific text book; however, the instructor will provide information in web page.

Exams and Grading:**Total Points = 1,000 points**

Web and Class Discussion	15 %	150 points
Mid-term Reflection	10 %	100 points
Experiential Learning Project	60 %	600 points
<ul style="list-style-type: none"> • Community Assessment • Video Documentary (Community Actor & Scientists) • E-Learning tool creation (problem & solution) 		
Final Presentation	5 %	50 points
Final Reflection	10 %	100 points

Grading Scale: 1000-point scale, A=901-1000. B=801-900. C=701-800. D=601-700. Your grade will be based on your mathematical average rounded to the next whole number.

Attendance and Make-Up presentations and reflections (<http://student-rules.tamu.edu/rule07>).

Students who miss presentations and reflections may be allowed to take a make-up presentations and reflections, Makeup presentations and reflections may differ in both form and content from the regularly scheduled presentations. If you miss the presentations and reflections, you must satisfy all the following requirements to take makeup presentations and reflections.

If you missed the presentations due to illness or university-excused absence, you must provide a satisfactory documentation explaining the reason for missing the test (for example, if you were ill, you must have a written excuse from your physician or from the University Health Center).

You must notify the instructor before the presentations and reflections or within the next 48 hours after the presentations and reflections.

Students who miss the presentations and do not meet each of these requirements above will receive a score of zero for the presentations and reflections.

Late Assignments:

Late presentations are penalized at a rate of 10% loss in points per day late including weekends.

Academic Integrity Statement and Policy.

Aggie Code of Honor <http://aggiehonor.tamu.edu/> : "Aggies do not lie, cheat, or steal nor do they tolerate those who do." Students are expected to attend all classes, complete assignments on time, and participate fully in class discussions and group projects. Violations will be handled in accordance with the Texas A&M University Regulations governing

academic integrity. For more information, students should refer to the Honor Council Rules and Procedures on the web at <http://student-rules.tamu.edu/aggiocode>

Ohio State Academic Integrity Statement and Policy:

Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. Academic dishonesty includes, but is not limited to, cheating, plagiarism, fabrication of information or citations, facilitating acts of academic dishonesty by others, unauthorized prior possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. Any suspected violation of the Code of Student Conduct will be forwarded to the Committee on Academic Misconduct.

The university's Code of Student Conduct defines academic misconduct as "any activity that tends to compromise the academic integrity of the University, or subvert the educational process." While many people associate academic misconduct with "cheating," the term encompasses a wider scope of student behaviors which include, but are not limited to, the following:

- Violation of course rules
- Violation of program regulations
- Knowingly providing or receiving information during a course exam or program assignment
- Possession and/or use of unauthorized materials during a course exam or program assignment
- Knowingly providing or using assistance in the laboratory, on field work, or on a course assignment, unless such assistance has been authorized specifically by the course instructor or, where appropriate, a project/research supervisor
- Submission of work not performed in a course: This includes (but is not limited to) instances where a student fabricates and/or falsifies data or information for a laboratory experiment (i.e., a "dry lab") or other academic assignment. It also includes instances where a student submits data or information (such as a lab report or term paper) from one course to satisfy the requirements of another course, unless submission of such work is permitted by the instructor of the course or supervisor of the research for which the work is being submitted
- Submitting plagiarized work for a course/program assignment
- Falsification, fabrication, or dishonesty in conducting or reporting laboratory (research) results
- Serving as or asking another student to serve as a substitute (a "ringer") while taking an exam
- Alteration of grades in an effort to change earned credit or a grade

Alteration and/or unauthorized use of university forms or records

Cases of alleged academic misconduct are adjudicated through a formal hearing process by the Committee on Academic Misconduct (COAM), a standing committee of the University Senate. To insure a broad representation on the Committee, COAM draws its members from throughout the university's academic community: faculty

(appointed by University Senate), graduate students (appointed by the Council of Graduate Students), and undergraduate students (appointed by Undergraduate Student Government).

Suggested Inclusions from Speaker of the TAMU Faculty Senate:

Copyright / plagiarism statement:

All Materials used in this course are copyrighted. This includes syllabi, exams, quizzes, and PowerPoint. Materials can be used for personal use only. Please note that it cannot be sold or given to other individuals. Because these materials are copyrighted, you do not have the right to copy them, unless I expressly grant permission.

As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without research cannot safely be communicated.

If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section "Scholastic Dishonesty" at (<http://aggiehonor.tamu.edu>).

Syllabus Change:

Revision to this syllabus will be made at the discretion of the instructor. Changes made to topics and due dates will be announced ahead of time; they will be communicated verbally and/or in writing.

Americans with Disabilities Act (ADA) Policy Statement:

"The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in White Creek on west campus, or call 845-1637. For additional information visit <http://disability.tamu.edu>."

Calendar of Activities

1. Week 1 - Introduction: Global perspectives (1.15 hr)
2. Week 1 - Framing the problem, framing the course (1.15 hr)
3. Week 2 - Food security and nutrition indicators and context analysis (2.30 hr)
4. Week 3 - Global perspectives (1.15 hr)
5. Week 3 - Experiential learning and current topics (1.15 hr)
6. Week 4 - Food malnutrition and disease prevention (1.15 hr)
7. Week 4 - Food malnutrition and disease prevention (1.15 hr)
8. Week 5 - Food-water-energy security under climate change (1.15 hr)
9. Week 5 - Food-water-energy security under climate change (1.15 hr)
10. Week 6 - Food-water-energy security under climate change (1.15 hr)
11. Week 6 - Food production environment and soils (1.15 hr)
12. Week 7 - Sustainability of alternative fruits and vegetable production to increase food security (1.15 hr)
13. Week 7 - African indigenous vegetables & food security: An international NGO perspective (1.15 hr)
14. Week 8 - Mid-term Reflection (1.15 hr)
15. Week 8 - Conflict migration and human capital (1.15 hr)
16. Week 9 - Conflict migration and human capital (1.15 hr)
17. Week 9 - Nutritional education and communication (1.15 hr)
18. Week 10 - Innovations for food security, hunger alleviation & sustainability (1.15 hr)
19. Week 10 - Agriculture, food security & sustainability intensification: Can we feed the world? (1.15 hr)
20. Week 11 - The seasonality of life for smallholder farmers & their families in poor, agrarian societies (1.15 hr)
21. Week 11 – Sustainability of the food supply chain (1.15 hr)
22. Week 12 - Experiential Learning Presentation (1.15 hr)
23. Week 12 - Experiential Learning Presentation (1.15 hr)
24. Week 13 - Experiential Learning Presentation (1.15 hr)
25. Week 13 - Thanks giving
26. Week 14 - Experiential Learning Presentation (1.15 hr)
27. Week 14 - Experiential Learning Presentation (1.15 hr)
28. Week 15 - Experiential Learning Presentation (1.15 hr)
29. Week 15 - Experiential Learning Reflection (1.15 hr)