

# World Food Problems

Purdue University

Fall 2016

3 credits

(revised: Aug 22, 2016)

Nutrition Science 590            Prof. Dennis Savaiano            [savaiano@purdue.edu](mailto:savaiano@purdue.edu) 4-9709  
Agricultural Economics 596   Prof. Gerald Shively            [shivelyg@purdue.edu](mailto:shivelyg@purdue.edu) 4-4218

The instructors generally maintain open door policies, but the best approach for meeting to discuss course matters is to contact the individual by email to schedule an appointment.

## Class Times and Locations

Monday	Lecture	9:30 am-10:20 am	Mathews Hall 304
Wednesday	Lecture	9:30 am-10:20 am	Mathews Hall 304
Friday	Discussion	9:30 am-10:20 am	Recitation 121 (Savaiano – Group 1) Recitation 103 (Shively – Group 2)

## I. Course Description

The goal of this course is to educate advanced undergraduate and graduate students on the multi-disciplinary challenges that exist in meeting the food and nutrition needs of a growing world population. The course aims to instill an appreciation of the importance of economics, food production and technology, trade, culture, communication, political processes and institutions, demography and related factors in determining adequate food availability and health globally. The end point for this multi-disciplinary perspective is nutritional adequacy, and much of the focus will be on factors that can prevent or limit malnutrition.

## II. Course Format

The course will meet three times per week during the semester. Typically, Mondays and Wednesdays will be devoted to faculty and student presentations and Fridays will be devoted to small group discussion. Readings will be assigned in advance of faculty presentations and will be made available on Blackboard. This course is considered writing-intensive. A large proportion of the course grade will be based on written work.

### **III. Course Learning Objectives**

- Understand global food production and consumption, food trade and its history including: the major plants produced and consumed; where they are grown; patterns and extent of global food trade; major food animals and animal production systems; countries involved in food trade; urbanization and food transportation; and effects of post-harvest processing on food trade and availability.
- Understand basics of world population growth and its relationship to past and future food production and consumption globally.
- Understand what malnutrition looks like, where it occurs, how it is measured, and the interactions between malnutrition (both under nutrition and obesity) and human health.
- Understand the basic economic principles that affect consumer food costs and consumption patterns globally.
- Understand how culture, communication and politics influence food availability, world food problems and malnutrition.
- Predict, based on available information, likely scenarios for the future of world food problems and malnutrition.

### **IV. Reading Assignments**

Required and optional readings will be assigned in advance of class meetings. Readings will be linked on the course Blackboard site and will be referenced by the week and/or day on which they will be discussed. There is no textbook for the course.

### **V. General Expectations**

Respect for instructors, guest lecturers and fellow students.

Academic honesty, consistent with Purdue's policy on academic integrity.

Preparation, participation, effort and self-reflection.

Cooperation with fellow students during in-class activities and projects.

Communication (keeping up with the course Blackboard site and regularly checking Purdue email for any correspondence about the course).

## **VI. Grading**

We will use a standard grading scale that includes pluses and minuses. Semester grades will be calculated on the following basis:

25% of grade: Attendance and participation, especially in Friday discussions. Your active participation is essential for success in this course, so do your best to be here. Please notify us in advance if you are unable to attend. (If you are sick, you shouldn't come to class, but should let an instructor know what is going on.) Full participation points will be awarded to students who are consistently prepared for class and engaged in class content and Friday discussions. Students may miss one Friday discussion without penalty or explanation.

25% of grade: Weekly written assignments. These will be assigned in class on Mondays and are due by 5:00 pm Thursdays. This schedule permits online group discussion during the week and also provides the instructors with time to read the assignments before the Friday discussion. Responses should be no more than 1 typed page, single spaced, using a Times New Roman or similar 12 point font, with 1" margins throughout. Late assignments will not be accepted. Students may drop one assignment without penalty.

10% of grade: Group presentations. Following the October break we will devote each Wednesday to a group-led lecture topic. Instructors will be responsible for assignment to groups and group topics. Additional information will be provided prior to the October break.

40% of grade: Final Project/Paper. Each student will prepare a paper or complete a project of their definition. These are due on December 2 by 5:00 pm; one half grade will be deducted for every day the paper is late, including weekend days. Papers should be 10-12 pages, not including references, tables, or figures. The professor leading your discussion section will talk with you about intermediate due dates for topics, outlines, rough drafts, etc., which may vary by instructor. The paper/project may take one of the following forms:

- A. Research Proposal. The student identifies an interesting and important research question, undertakes a review of pertinent literature, and outlines a study that could address the question. Examples include: Are food taxes a good way to combat the obesity epidemic? Should poor farmers produce for subsistence or for the marketplace? Does animal agriculture improve nutrition in poor countries?
- B. Placing Experience in the Broad Context. Students may choose to volunteer or work in a setting pertinent to the topics of the class, and then write how the local experience relates to broader knowledge on the topic. For instance, a student working in a soup kitchen might interview its directors, then write about choices kitchens must make between feeding more people cheaper (unhealthier) foods and serving healthier

foods to fewer individuals, reviewing what has been written on the topic from other settings. Or a student working in the Food Finders in Lafayette could integrate that experience with what is known globally. Please discuss how the knowledge you acquire from the broader context might be used to improve local programs, and obtain permission of the instructors to insure the proposed topic fits with the aim of the assignment.

- C. White paper. Students can choose to research a policy area and write a paper that succinctly discusses a key policy problem and various policy options/interventions, concluding with a recommendation for a particular course of action (say, to a national government or to an international organization like the UN). As an example, should wealthy countries or governments give/sell/subsidize pesticides and fertilizers for farmers in poor countries?

Regarding the paper, please note the following dates:

Friday, October 14 – submit topic by email for instructor approval  
Friday, November 18 – submit a full list of your references/sources  
Friday, December 2 – final paper due

## **VII. Communication**

Please note that the primary out-of-class method of communication will be via email to your Purdue email address. Instructors will not generally attempt to contact you at email addresses other than your Purdue email address. It is your responsibility to check for mail on a regular basis. We recommend checking your Purdue email account at least once every 24 hours.

## **VIII. Special Needs**

If you have a disability that requires academic adjustments, please make an appointment to meet with one of the instructors during the first week of classes to discuss your needs. Please note that university policy requires all students with disabilities to be registered with [the Disability Resource Center](#) in the [Office of the Dean of Students](#) before classroom accommodations can be provided.

## **IX. Academic Integrity**

University policy on academic dishonesty is clear: academic dishonesty in any form is strictly prohibited. Anyone found to be cheating or helping someone else cheat will be referred directly to the Dean of Students for disciplinary action. Penalties are severe and may include dismissal from the University. The risks associated with cheating far outweigh the perceived benefits. Academic dishonesty includes citing someone else's work as your own, using "cheat sheets" or sharing your answers with someone else. If you are unsure whether your planned action constitutes academic dishonesty, seek clarification from your instructors. Other information regarding your rights and responsibilities as a student is contained in the Purdue University [Code of Conduct](#). Writing assignments for this course will be checked for originality using the iThenticate software.

## X. Campus Emergencies

In the unusual event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances. To get information about changes in this course visit the course Blackboard page, contact one of the instructors by email, or call one of them at the phone number provided.

## XI. Class Schedule (revised Aug 22, 2016 – subject to change)

Date	Topic	Instructor
22-Aug	Course Introduction	Savaiano & Shively
24-Aug	Hunger Banquet, in Stone Hall, room 232	Savaiano & Shively
26-Aug	Week 1 Discussion	
29-Aug	Undernutrition	Savaiano
31-Aug	Demographics: Was Malthus right?	Savaiano
2-Sep	Week 2 Discussion	
5-Sep	Labor Day (no class meeting)	
7-Sep	Agriculture, Nutrition and Health	Shively
9-Sep	Week 3 Discussion	
12-Sep	The Green Revolution	Shively
14-Sep	The World Food Crisis of 2008	Shively
16-Sep	Week 4 Discussion	
19-Sep	The Science of Obesity	Savaiano
21-Sep	The Politics of Obesity	Boling
23-Sep	Week 5 Discussion	

26-Sep	Global Outlook on Food Production	Burniske
28-Sep	Sustainability and Resilience	Hallett
30-Oct	Week 6 Discussion	
3-Oct	Intensification	Burniske
5-Oct	Carrying Capacity of Our Planet	Burniske
7-Oct	Week 7 Discussion	
10-Oct	October break (no class)	
12-Oct	Nepal Policy Dilemma	Shively
14-Oct	Week 8 Discussion	Project topic due
17-Oct	Culture and Food Identity	Acharya
19-Oct	<i>Does Culture Matter to Human Nutrition?</i>	Group 4
21-Oct	Week 9 Discussion	
24-Oct	Smallholder Farms	Burniske
26-Oct	<i>Can Better Farming Save Poor Farmers?</i>	Group 2
28-Oct	Week 10 Discussion	
31-Oct	Food Policy	Ricker-Gilbert
2-Nov	<i>Is Food Aid Necessary?</i>	Group 3
4-Nov	Week 11 Discussion	

7-Nov	Livestock in the Developing World	Ebner
9-Nov	<i>Can Animal Agriculture Improve Nutrition?</i>	Group 1
11-Nov	Week 12 Discussion	
14-Nov	Advertising and Food Choices	Boling
16-Nov	<i>Are Consumers Free to Choose?</i>	Group 5
18-Nov	Week 13 Discussion	Project reference list due
21-Nov	<i>Why is there hunger in America?</i>	Group 6
23-Nov	Thanksgiving (no class)	
25-Nov	Thanksgiving (no class)	
28-Nov	American Food and Farm Policy	TBD
30-Nov	<i>Should America Produce More Food?</i>	Group 7
2-Dec	Week 15 Discussion	Final project paper due
5-Dec	The Future of Global Food Supply and Demand	Hertel
7-Dec	Urbanization and the Future of Food	Shively
9-Dec	Week 16 Discussion	