World Hunger, Population, and Food Supplies AREC 365:

Syllabus (Version 8/17/2023) Draft, subject to revision

Schedule

Description of the Course

Every single year for over 50 years, we have produced more food per person than in the past, even though population is growing. Yet people are still hungry and children die from malnutrition, becausethe food does not reach all the people who need it. This course explores the problem of world hunger and possible solutions to it. Issues we will cover include world demand, supply, and distribution of food, options for leveling off world food demand, how we might increase the supply of food, and improving its distribution. We will also look at the environmental limitations to increasing world food production.

Instructor and Teaching Assistants

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Teaching Assistants: TBD

Prerequisites and Required Materials

Prerequisites: none

The class follows the textbook very closely with a few references to other material.

- 1. The Textbook: The World Food Problem, 6th ed.: Toward Understanding and Ending Undernutrition in the Developing World 6th Edition. Howard D. Leathers (Author), Kenneth L. Leonard (Author). New, used and ebook editions are available.
- 2. Canvas Learning Management System: We use the course management tool ELMS for this class. (www.elms.umd.edu) Assignments, lectures, and quizzes are posted on that site. All lecture materials and recordings will be available on ELMS.
- 3. **Additional Reading:** All additional readings (detailed on ELMS) are available on ELMS or on the web, for free.

Learning Outcomes

In this class you will learn

1. Food

- There is enough food in the world to feed every single person an adequate diet.
- Every single year for over 50 years, we have produced more food per person than in the past, even though population is growing. [Note that this changed in 2020. We will talk about this.]
- That people are still hungry and children die from malnutrition, the food does not reach all the people who need it.
- That hunger leads to illness and death, even in cases where people do not starve.
- That it is not technically possible to redistribute food from those who have more than enough to those who do not have enough.

2. Population

- That many of the poorest parts of the world have the highest population growth rates.
- That every developed country in the world has gone through a demographic transition in which people choose smaller family sizes.
- That we understand most of the drivers of this transition and can accelerate the process.

3. Agriculture

- That agriculture is both the largest source of income for most of the world's poor and their most direct source of food.
- That agricultural productivity responds to technical innovation in the same way that airplanes, automobiles and computers respond to innovation.
- 4. And finally, that, from what we know of the world food system now, we have a narrow window to bring reasonable prosperity to the vast majority of the world's population and to create a sustainable future for the world's citizens.

Understanding Plural Societies Learning Outcomes

Life in a globally competitive society of the twenty-first century requires an ability to comprehend both theoretical and practical dimensions of human difference. From that perspective, Understanding Plural Societies is the centerpiece of the University's Diversity requirement. Courses in this category speak to both the foundations—cultural, material, psychological, historical, social, and biological—of human difference and the operation or function of plural societies.

On completion of this Understanding Plural Societies course, students will be able to:

(*)Demonstrate understanding of the basis of human diversity and socially-driven constructions of difference: biological, cultural, historical, social, economic, or ideological.

(*)Demonstrate understanding of fundamental concepts and methods that produce knowledge about plural societies and systems of classification.

- (*)Explicate the policies, social structures, ideologies or institutional structures that do or do not create inequalities based on notions of human difference.
 - (*)Interrogate, critique, or question traditional hierarchies or social categories.

Policies

Participation: Points are awarded for participation. Participation takes place during lecture and requires you to follow the directions given by the instructor during that class.

Integrity: Collaborating with other students for quizzes and problem sets is allowed. Communicating with other students during an exam is not allowed.

Absences: Every class meeting has an associated participation grade. It is important to come to class every day.

Due Dates: There is a reading quiz and a problem set due every day. we do not have a midterm. Problem sets are due before class starts.

Teams/Groups: We encourage you to work in teams on problems sets and time is allocated during lectures for teams to gather and work in the classroom. For the first two days, all problems sets are individual assignments but we encourage you to work with other students in turning them in. Starting day 3 you will be encouraged to form formal teams of up to four students.

You may choose team sizes of 1 (alone), 2, 3 or 4 students and you can change your mind later in the semester.

Teams earn extra credit from discussion questions, so groups up to 4 have an advantage.

Grading

The class is graded over points earned through exams, assessments and participation.

- 1. **Exams: 40%** There will be three one-hour long exams Each exam is worth 20% and the lowest score of the three will be dropped.
- 2. **Problem sets: 25%** There will be 12 problem sets over the course of the semester and the lowest score will be dropped. Some of these assignments are individual assignments and some are team assignments (each will be clearly indicated).
- 3. **Reading Quizzes: 25%** Every day before class there will be a quiz based on the reading material for that day.
- 4. Individual Participation: 10% Participation is recorded for each class session.
- 5. Individual Extra Credit Score: up to 2% During discussion, particularly helpful, in-

- sightful, or interesting discussion contributions are noted and individuals can earn up to 2 points out of 100 to be added to their total directly.
- 6. **Team Extra Credit score: up to 4%** During discussion, helpful, insightful, or interesting discussion contributions are noted. The top teams in the class can earn up to 4 points out of 100 to be added to the score of every team member directly.
- 7. Extra Credit: up to 3% Students will have the option of creating a TikTok to illustrate an issue in the class or to educate others on an issue in the class.

