

## PEPS 310 Spring 2010 Syllabus

### Environment & Agriculture: Food Production and Ethics

Team-taught: Dr. E.M. Villalobos & Dr. M.G. Wright

T-R 10:30 -11:45 am Contact details, Gilmore Hall 310, 3050 Maile Way, UH Manoa Campus

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Environment and Agriculture explores the interplay between the advances in agricultural technology and the associated environmental impacts. The course examines the ecological, social, political, and economic principles that relate to agricultural practices in rural and large scale farming. There is a required textbook for this course: “**Food Fight: The Citizen’s Guide to a Food and Farm Bill**” by Daniel Imhoff. In addition to the textbook, we will also use a variety of sources as supplementary reading including current newspaper articles, book excerpts, and scientific journals. Many of the readings will be accessible online as pdfs or will be emailed directly to you. During the semester we will also watch a number of documentaries that will complement and expand key topics including: water scarcity, biotechnology, farm subsidies, pesticides, mechanization in agriculture, and the cost of healthy food.

Evaluation and final grades will be based on the following course components:

Video Quizzes	60 points	
Midterm Exam	30 points	(Feb 25, 10:30 to 11:30 am)
Activities/Homework	50points	
Attendance	10 points	
Participation	10 points	
Final exam	40 points	(May 11, 9:45 to 11:45 am)

The grade breakdown is A=180 and above, B= 179-160, C= 159-140, D= 139-110, F=<109  
I will use the + and – system within each grade category.

Attendance is imperative. The Video Quizzes will be conducted in class, following the viewing of the corresponding documentary. If you are absent, you can arrange to watch a single video, within one week of the showing in class, after that period you will not be allowed to take the quiz. Office Hours: Monday 12 noon to 1 pm.

The midterm exam will consist of a combination of essay questions about national and international agricultural issues and short answer questions on specific technical concepts. The exam topics would have been explored via readings, activities, homework, and videos during the course of the semester. This being an ethics course, the goal is to encourage you to incorporate scientific knowledge from different sources, and develop a personal perspective on these important subjects.

Academic honesty: Please be aware that there is a zero tolerance for cheating and plagiarism in this class. Your reports on class activities should be your own words. Make sure to cite your sources used in including web-sources. Any form of cheating during an exam or assignment will result in an F in the course.

Activity/Homework/Report	Date due
Activity 1 Awareness (Organizations) 5pts	Jan 19
Activity 2 Hawaiian Aquifers 5 pts	Jan 28
Activity 3 The cost of healthy food 5 pts	Feb 9
Activity 4 In class discussion of food report 5pts	Feb 9
Activity 5 Our Local Food Report 20 pts	Feb 16
Activity 6 The Farm Game (in class) 5 pts	Mar 30
Activity 7 Awareness (Organizations) 5 pts	Mar 30

### Tentative Course Schedule

#### WEEK 1

**Jan 12** Introduction to the class: science, ethics, politics, and the informed consumer Awareness  
Activity 1: Organizations (5 pts), due on Jan 19. Download the ppt from Earth Policy Institute, review for next class. Assigned readings for Jan 14 (textbook pages 7-11),

**Jan 14** Viewing of *“Who killed the electric car?”*

Farm Bill introduction. Water, farming, and human rights. Assigned reading is online pdf from Earth Policy Institute, Plan B 3.0, Chapter 3 Emerging Water Shortages

#### WEEK 2

**Jan 19** Discussion of assigned readings. Begin viewing of *“Blue Gold: World Water Wars”* Politics of Water

**Jan 21** Fertilizers and water pollution. Continue viewing *“Blue Gold: World Water Wars”*  
Video Quiz 1- 10 pts. Activity 2: Find out about Hawaiian Aquifers (5 pts), due Jan 28.  
Assigned readings textbook pages 14-19, 22-31.

#### WEEK 3

**Jan 26** Discussion of assigned readings: “Cornification” and the Farm Bill Begin viewing of *“King Corn”*. Assigned readings textbook 33-42.

**Jan 28** Continue viewing “**King Corn**” (Video Quiz 2 10 pts). In class discussion: The transformation from Family farms to Mega farms. Assigned readings for Feb 2: Chapter 9 and 10 (Farm subsidies)

WEEK 4

**Feb 2** Discussion of assigned readings. Assigned readings 65-71

**Feb 4** No Class. Students complete Activity 3 The cost of healthy food (5 pts), due on Feb 9. Assigned reading for Feb 9: Chapter 15 (pages 89-101)

WEEK 5

**Feb 9** In class activity based on your data from Activity 3 (Activity 4) (Organic, Local, Imported, Travel Distance). Discussion: What is in our food? How is it grown? Pesticides and Environmental Impact.

**Feb 11** No class but students expected to prepare personal report on their findings (Activity 5) Local Food Report (20 pts) due on Feb 16

WEEK 6

**Feb 16** Food Report (Activity 5) due today. Begin viewing of “**Food Inc.**” Chapter 16: pages 102-119

**Feb 18 Food Inc** (Video Quiz 3- 10 pts) Class discussion

WEEK 7

**Feb 23** Mechanization and farms (inputs and fuel costs)

**Feb 25** Midterm Exam (30%)

WEEK 8

**Mar 2** Mechanization begin watch **Our Daily Bread**

**Mar 4 Our Daily Bread** (video Quiz 10 pts)

WEEK 9

**Mar 9** Biodiversity and Ecological Footprint (Assigned reading ESI handout)

**Mar 11** Ecological Sustainability Index

WEEK 10

**Mar 16** Insects and agriculture. Awareness Activity 5 pts due on March 30

**Mar 18** Insect herbivores and IPM, inputs and outputs (Guest speaker). You will be given materials to prepare for the class activity on March 30

WEEK 11

**Mar 23** Spring Break

**Mar 25** Spring Break

WEEK 12

**Mar 30** Class Activity: **Vandana Shiva's Farm Game** 5 pts

**Apr 1** **Wild China** Video Quiz 10 pts

WEEK 13

**Apr 6** Genetic Engineering and the promise of sustainability. Assigned reading

**Apr 8** Land races and conservation of biodiversity. Assigned reading: Biopiracy: The Plunder of Nature and Knowledge (Chapter 2)

WEEK 14

**Apr 13** **The Future of Food**

**Apr 15** **The Future of Food (Video Quiz)**. Assigned reading for April 20 "A Spring Without Bees" pages 1-28

WEEK 15

**Apr 20** Guest speaker: Scott Nikaido: Honeybees. Q&A from the assigned reading. Assigned readings for April 22: Fruitless Fall: pages 84-99, and 123-136

**Apr 22** Pollination Crisis.  
Assigned reading for April 27 Textbook pages 120-137

WEEK 16

**Apr 27** Forest Fragmentation and agriculture

**Apr 29** Coffee and other possibly environmentally friendly agro-ecosystems

WEEK 17

**May 4** Review: Agriculture, Conservation, and Food Security: A Global Issue