

THE WORLD FOOD ECONOMY

Economics 106 (Five Units)

History Corner, 200-002

Winter Quarter, 2012/13

Tuesday, Thursday 11:00am – 12:50pm

[Plus Friday lectures and section meetings—places, times and dates TBA]

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The world food economy is a survey course that covers the economic and political dimensions of food production, consumption, and trade. It is comprised of four major sections: current empirical evidence on the international food situation; structural features (agronomic, technological, and economic) that determine the nature of domestic food systems; the role of domestic food and agricultural policies in international markets; and the integrating forces of international research, trade, and food aid in the world food economy. **The course emphasizes the food problems of developing countries within an international context.**

Lectures will be held two times weekly—Tuesdays and Thursdays. Separate Friday section meetings will be held in conjunction with reviews for examinations and for meetings associated with special visitors and the group project. A separate listing of these meetings will be distributed once the course size has stabilized.

The course website can be found at coursework.stanford.edu. Currently it features the readings for the first three lectures, a copy of *Food Policy Analysis*, and a copy of the syllabus. Although most readings are in the reader or in the “material” section of coursework, we will announce and post additional readings for the course as they become available. Course announcements will be made via coursework, and later in the quarter the website will feature many of the sources that will be useful in the group project.

A two-hour mid-term and a three-hour final examination will be required. In addition, students will be required to complete a group exercise that will entail a written essay and an oral presentation. The essay will be due when the group presentations take place. The final grade will be calculated on the basis of 500 points as follows:

| | |
|--------------------------|------------|
| Mid-term exam | 125 points |
| Preliminary presentation | 25 points |
| Group exercise | 250 points |
| Final exam | 100 points |

The Teaching Assistants for the course will be Kate Hyder (Earth Systems), Anna Schickele (Public Policy), and a graduate TA from Economics (TBA). They will help with the grading, section meetings, group exercise, and with answering questions during office hours. Their office hours will be posted during the first week of the quarter.

Contacting the TAs:

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Anna Schickele: aschickele@stanford.edu

[Econ TA, TBA]

Assigned Reading:

Readings for the course are assembled in the 2011/12 World Food Economy Course Reader, available for purchase in class or from Field Copy and Printing. Additional readings (to be announced during the course) and the readings from *Food Policy Analysis* will be posted on coursework in the “materials” section. This file will be hard to read on line, so you will want to print a copy for your personal use. Other readings will also be posted on coursework as needed as the quarter proceeds, so please check the lecture files in the “materials” section each week.

January 8 Course Organization

January 10 Framework for Analysis

Peter Timmer, Walter Falcon, and Scott Pearson, "Introduction to Food Policy Analysis", Chapter 1 in *Food Policy Analysis*, The Johns Hopkins University Press, 1983, pp. 3-18. [**Referred to hereafter as TFP, on coursework**]

Rosamond Naylor and Walter Falcon, “Our Daily Bread”, *Boston Review* September/October, 2008: pp. 13-18.

The World Bank, “Overview”, *World Bank Development Report 2008*, Washington, D.C.: pp. 1-25

FAO, “Undernourishment Around the World”, *The State of Food Insecurity in the World*, Rome, 2009: pp. 8-12.

January 15 Consumption

TFP, "Analysis of Food Consumption and Nutrition", Chapter 2, pp. 19-76.

Prabhu Pingali, “Westernization of Asian Diets and the Transformation of Food Systems: Implications for Research and Policy”, *Food Policy* 32 (2), 2006: pp. 281-298

January 17 Production

TFP, "Analysis of Food Production Systems", Chapter 3, pp. 77-121.

****January 18 (Friday by 5 PM): *Submit requests for group participants to the TAs.***

January 22 Farming Systems and Technical Change

Gordon Conway, Chapter 4 “Past Successes”, *The Doubly Green Revolution*, Penguin Press, 1997: pp. 44-65.

Yujiro Hayami and Vernon W. Ruttan, “Toward a Theory of Technical and Institutional Change”, Chapter 4 in *Agricultural Development: An International Perspective*, Johns Hopkins Press, 1985:

*Please focus especially on pages 84-90 (***)*, 94-103 (*) and 110-114 (*).

Beth Robertson and Per Pinstrup-Anderson, “Global Land Acquisition: Neo-Colonialism or Development Opportunity?” *Food Security* (2), 2010, pp. 271-283.

**Optional but recommended reading (classic article from field)*

Robert M. Solow. “Technical Change and the Aggregate Production Function”, *Review of Economics and Statistics*, 39(3), 1957, pp 312-320.

(Groups will be announced for Group Project)

January 24 Biotechnology and Technological Change II (Slides)

P. G. Pardey, N. M. Bientema, S. Dehmer and S. Wood, “Agricultural Research: A Growing Global Divide?” International Food Policy Research Institute, August 2006, pp. 1-24.

FAO, “What is agricultural biotechnology?” *The State of Food and Agriculture* 2004, Rome: pp 8-24

Gebisa Ejeta, “Revitalizing agricultural research for global food security”, *Food Security* (1), 2009, pp. 391-401.

January 29 The Livestock Revolution and Biofuels

Rosamond L. Naylor and Walter P. Falcon, "The Global Costs of American Ethanol", *The American Interest*, VII (2), November/December 2011, pp. 66-76

Rosamond Naylor et al., "Losing the Links Between Livestock and Land," *Science*, December 2005, pp 1621-1622.

Vaclav Smil, "Rationalizing Animal Food Production", Chap. 5 in *Feeding the World, A Challenge for the 21st Century*, MIT Press, 2000, pp.141-180.

**Optional (on coursework)*

Stefan Wirsenius, Christian Azar, and Goran Berndes, "How Much Land is Needed for Global Food Production Under Scenarios of Dietary Changes and Livestock Productivity Increases in 2030?" *Agricultural Systems* (2010), doi: 10.1016/j.agsy.2010.07.005.

Philip K. Thornton, "Livestock Production: Recent Trends, Future Prospects", *Philosophical Transactions of the Royal Society B* **365** (2010): doi: 10.1098/rstb.2010.0134: pp. 2853-2867.

January 31 Structural Transformation and Dynamics

C. Peter Timmer, "The Paradoxical Role of Agriculture in the Structural Transformation" (Chapter 3) and "Concluding Observations" (Chapter 5) in *A World Without Agriculture*, American Enterprise Institute, Washington, D.C., 2009: pp 37-48 and 61-63.

D. Gale Johnson, "Agriculture and the Wealth of Nations", *American Economic Review*, May 1997, pp. 1-12.

H. S. Houthakker, "Causes of the Farm Problem", Chapter 2 in *Economic Policy for the Farm Sector*, American Enterprise Institute, 1967, pp. 5-11.

February 1 Mid-Term Exam Review Session

February 5 MIDTERM EXAM

PART II. POLICY

February 7 Introduction to Policy: Efficiency Objective

Wesley Seitz, Gerald Nelson, and Harold Halcrow, *Economics of Resources, Agriculture, and Food*, McGraw-Hill, 1994, pp. 165-187.

****FEBRUARY 8 (FRIDAY) Special Lecture: ATTENDENCE REQUIRED**

Jeff Raikes, Chief Executive Officer, The Bill and Melinda Gates Foundation; and Justin Raikes, Los Arboles Management LLC and Raikes Family Farm: “Personal experiences from the field and from the Gates Foundation”.

February 12 Efficiency (cont.) and Equity Objectives

[Additional readings may be announced and posted on coursework.]

February 14 U. S. Agriculture

Michael Pollan, “Farmer in Chief”, *New York Times Magazine*, October 12, 2008.

Bruce Gardner, “Plowing Farm Subsidies Under”. *National Review Online*, May 17, 2007.

Michael Crupain and Ed Yowell, “Farm Bill 1.06: What You Need To Know About Food Stamps and the 2012 Farm Bill,” *Food Systems Network NYC*, August 2011.

February 19 Hunger and Orphan Crops

Conway, Chapter 5, “Food Production and the Poor”, pp. 66-85.

Amartya Sen, "Food, Economics, and Entitlements", in Carl Eicher and John Staatz (eds.), *Agricultural Development in the Third World*, 1990, pp. 189-205.

Per Pinstrup-Anderson, “Food Security: Definition and Measurement”, *Food Security* (1), 2009, pp. 5-7.

***On coursework (optional)*

Deepa Narayan. “Definitions of Poverty”, Chapter 2 in *Voices of the Poor: Can Anyone Hear Us?* Oxford and World Bank (Washington, D.C.), 2000: 31-65

February 21 Environmental Objective, and the Sequencing of Policies

TFP, “The Constraints Framework,” Chapter 3, pp. 117-121.

Robertson, G. P., & Swinton, S. M., “Reconciling Agricultural Productivity and Environmental Integrity: A Grand Challenge for Agriculture”, *Frontiers in Ecology*, 3, 2005, pp. 38-46.

****February 20-22 Preliminary presentations (to be scheduled with TAs)**

February 28 Macroeconomics and Food Policy

TFP, "Macroeconomic Policies and the Food System", Chapter 5, pp. 215-259.

C. Peter Timmer, “The Macro Dimensions of Food Security: Economic Growth, Equitable Distribution, and Food Price Stability”, *Food Policy*, June 2000, pp. 283-295.

(Optional but recommended, on coursework)

Rosamond Naylor and Walter Falcon, “Food Security in an Era of Economic Volatility”, *Population and Development Review*, December 2010. (See esp. pp. 698-711).

March 1 Cereal Markets and International Trading Arrangements

Jennifer Clapp, “WTO Agriculture Negotiations: Implications for the Global South”, *Third World Quarterly*, Volume 27 (4), 2006: pp. 563-577.

Stephen Tokarick, “Dispelling Some Misconceptions About Agricultural Trade Liberalization”, *Journal of Economic Perspectives*, 22 (1), Winter 2008: pp. 199-216.

(Optional but recommended, on coursework)

Naylor and Falcon, *Population and Development Review*, December 2010 (See coursework file in “materials” on “macro and volatility”).

March 6 Food Aid and Food Security

Christopher Barrett, “US Food Aid: It's Not Your Parents' Program Any More!”, *Journal Of Agribusiness*, Volume 24 (1), 2006: pp. 1-16.

Walter Falcon and Rosamond Naylor, “Rethinking Food Security for the 21st Century,” *American Journal of Agricultural Economics*, Volume 87, November 2005: pp. 1113-27.

Simon Maxwell, "Food Security: A Post-Modern Perspective", *Food Policy*, Volume 21 (2), 1996: pp. 155-170.

March 7, 8, 9 Group Project Reports

March 13 Wrap-up Lecture

March 15 Review Session

March 21 FINAL EXAM 7:00-10:00 pm. Location TBA.

Group Exercise --The World Food Economy

All students taking the course for a letter grade are expected to participate in the group exercise. The exercise will have both written and oral components and in total will count 275 points towards the final grade. A presentation of a working model will be due Feb 24th, and the group presentations will be due March 7, 8, 9.

Groups may be self-formed and should typically include 5 individuals. This flexibility in formation is intended to permit the creation of groups within residences, for example. A membership listing of each self-formed group should be given in writing to the TAs on or before **January 17th**. Individuals not already associated with a group will be assigned to one by January 24th.

The assignment is to provide a written and oral assessment of the future global food situation as of the year 2050.

The first step is to read and evaluate a series of books, articles, and websites that will be distributed to each group, plus any other material the group deems appropriate.

The specific tasks are to:

(1) Develop a perspective, drawn from the foregoing material, and then write a group analysis on this perspective (not to exceed 5000 words). The style and level of this essay should be at a level equivalent to that which might be published in *Scientific American*, the *Journal of Economic Perspectives*, or other comparable periodicals.

(2) Project future trends in cereal prices and global cereal trade. The organization and form of the group exercise can vary to suit the group's interests and needs. However, the essay must deal with the real prices of cereals, as well as cereal trade. These tasks are probably best accomplished by adding two extra columns for 2030 and 2050 to the attached trade matrix and by indicating an approximate level of real prices for cereals in 2030 and 2050 as compared with current price levels.

(3) Give a short presentation of how you intend to estimate trade and prices (your "model") to the TA's by February 24th. This preliminary presentation will be both an opportunity for your group to demonstrate that it has a working model and an opportunity to receive feedback on the model. [25 points]

(4) Present (**NOT READ**) this perspective to the professors at the end of the quarter (i.e. March 7, 8, 9). This presentation will involve the group only (not the rest of the class), plus the professors, the T.A.s, and perhaps 1 or 2 additional outside "judges." [250 points]

Figuring out the group's perspective, who is to do the writing, and who and how many of the group members are to make the oral presentation are all parts of the exercise. All members of the group must be present at the time of the oral report, however, and everyone will be expected to participate in the discussion that follows. **All members of the group will receive the same grade.**