

APEC 205 – Agriculture and Society
(Section 1, 9:05-9:55 MWF, P&AS A102)
(Section 2, 10:10-11:00 MWF, P&AS A103)

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Office Hours 9:00-11:00 TT

Course Description

Introduction to the development of world society with a focus on food production, from early hunting and gathering to modern biotechnology. Analysis of factors driving societal growth with a global perspective. Systematic impacts of growth in technical capacity to produce agricultural products on farm and community organization, industrialization, and the global economy. Food security and food needs in developed and developing countries. Modern food policy issues surrounding food production technology and public policy intervention in food markets and trade.

Goals and Objectives

The goal of the course is to introduce each student to the process of technological change that has enabled people to obtain food to sustain the growth of population and the organization of society from prehistoric times to the present. To attain this goal the class will study the major steps in food production technology and impacts on social organization on a global scale.

Text: Diamond, Jared. 1999. *Guns, Germs, and Steel*. New York: W.W. Norton & Co.

Other Readings:

Heilbroner, R.L. 1986. *The Worldly Philosophers: The Lives, Times, and Ideas of the Great Economic Thinkers, 6th Ed.* New York: Simon & Schuster, Inc. Chapter 4, “The gloomy presentiments of Parson Malthus and David Ricardo”

Chrispeels, M.J. and D.E. Sadava. 2003. *Plants, Genes, and Crop Biotechnology, 2nd Ed.* Sudbury, MA: Jones and Bartlett Publishers. Chapter 1, “Human Population Growth: Lessons from Demography;” Chapter 13, “Ten Thousand Years of Crop Evolution;” Chapter 20, “Urban Myths and Real Concerns about Genetically Modified Crops”

Mingay, G.E. 1977. *The Agricultural Revolution: Changes in Agriculture 1650-1880*. London: Adam & Charles Black. Chapter 2, “New Methods of Farming;” Chapter 9, “The Environment of Improved Farming”

Paarlberg, D. and P. Paarlberg. 2000. *The Agricultural Revolution of the 20th Century*. Ames, IA: Iowa State University Press. Chapter 2 “Mechanized Agriculture” and Chapter 3 “Chemical Advances”
“Industrial Revolution. First and Second.” Found at
<http://college.hmco.com/history/readerscomp>

Rosset, Peter, Joseph Collins, and Frances Moore Lappe. 2000. “Lessons from the Green Revolution” *Tikkun Magazine*, March/April 2000. Find at
<http://www.foodfirst.org/node/230>

Fernandez-Cornejo, J. and M. Caswell. 2006. “The First Decade of Genetically Engineered Crops in the United States.” *Economic Information Bulletin No. 11*, Washington, DC: USDA.

Penn, J.B. “Agricultural Biotechnology and the Developing World” at
<http://usinfo.state.gov/journals/ites/0903/ijee/ijee0903.pdf> pp 8-10

United Nations, Food and Agriculture Organization. 2000. *The State of Food and Agriculture: Lesson from the Past 50 Years*. Rome: FAO. Part 2, “World food and agriculture: Lessons from the past 50 years”

Course Outline:

Week 1: Introduction, Malthus and the balance of food production and population growth.

Heilbroner, Chapter 4
Diamond, Prologue

Week 2: The rise and spread of food production

Diamond, Chapters 1 & 3
Quiz #1

Week 3: The rise and spread of food production

Chrispeels and Sadava, Chapter 1
Diamond, Chapter 4, 5, & 6

Week 4: The rise and spread of food production

Diamond, Chapters 7 & 8
Quiz #2

Week 5: The rise and spread of food production
Diamond, Chapter 8 & 9
Chrispeels and Sadava, Chapter 13

Week 6: The rise and spread of food production

Diamond, Chapters 10
Exam #1

Week 7: From Food to Guns, Germs and Steel

Diamond, Chapters 11 & 12

Week 8: From Food to Guns, Germs and Steel

Diamond, Chapters 13
Quiz #3

Week 9: From Food to Guns, Germs and Steel

Diamond, Chapter 13 & 14

Week 10: From Food to Guns, Germs and Steel

Diamond, Chapter 14
Quiz #4

Week 11: Technological change in agriculture, mechanization

Mingay, Chapters 2 and 9
Jones, Part 1
Quiz #5

Week 12: Technological change in agriculture

Paarlberg & Paarlberg
FAO, Chapter 2
Exam #2

Week 13: The developed and developing worlds in the global food system

Crispeels & Sadava, Chapter 13

Week 14: The global food market: Challenges and policy responses

Rosset, et al.

Quiz #6

Week 15: Where do we go from here

Penn

Fernandez-Cornejo & Criswell

FAO (2000), Part 2

Quiz #7

Final Exam

Academic Integrity

As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a "high Seminary of learning." Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

When, in the opinion of a faculty member, there is evidence that a student has committed an act of academic dishonesty, the faculty member shall make a formal written charge of academic dishonesty, including a description of the misconduct, to the Associate Dean of Undergraduate Services. At the same time, the faculty member may, but is not required to, inform each involved student privately of the nature of the alleged charge.

Attendance Policy

Students are expected to attend class. Exams and quizzes will be based on material covered in class.

Grading Policy

Grades will be based on two hour exams, six quizzes, the final exam, and class attendance and participation. Each hour exam will be worth 100 points. Each quiz will be worth 20 points. Seven quizzes will be given during the semester, but only the top six quiz scores will count towards the final grade. The final exam will be worth 120 points. Attendance and participation will be worth 20 points. Course grades will be determined by the total number of points earned.