

EESB16: Feeding Humans - The Cost to the Planet Course Outline

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Lecture: 1-3 pm HW214.

This course outlines the development of modern industrialized agriculture, including the tools of genetic engineering and its application to the species we rely on for food. Environmental impacts of these developments will be highlighted, including over-harvesting, genetic erosion, soil erosion, pesticide and fertilizer use, and the issues surrounding the use of genetically modified organisms. The course has been enjoyed by students of biology, environmental science and social sciences.

Prerequisite: BGYA01H & BGYA02H.

Course Text: None. Readings provided.

Date	Lecture
Jan 7	Introduction
Jan 14	Traditional agriculture
Jan 21	Industrialized crop production
Feb 28	Pesticides
Feb 4	Fertilizers
Feb 11	Confined Animal Feeding Operations
Feb 18	READING WEEK
Feb 25	MIDTERM
March 4	Fisheries and aquaculture and GM Fish
March 11	Basics of genetic engineering
March 18	GM crops and their special issues
March 25	GM mammals and birds
April 1st	Packaging and distribution

Evaluation

Assignment	10%
Tutorial participation	5%
Midterm Exam	30%
Final Exam	30%
Poster Presentation	25%

Exam Format:

Midterm: Multiple choice

Final: Multiple choice, definitions, short answers.

Tutorials

Students will give poster presentations in groups of up to 4 students during a poster session scheduled at the end of term in a public part of the campus.

Tutorials will be used to perform calculations for Assignment 1, view video material, assign poster groups, poster outline presentations to tutorial groups and for reading material discussion.

Suggested Poster Topics

See material in lecture 1 – Feeding Humans.ppt

Resource Books - Optional Reading

Armesto, Felipe Fernandez. 2002. Near a Thousand Tables: A History of Food

Cook, Christopher D. 2005. Diet for a Dead Planet: How the Food Industry Is Killing Us.

Dalby, Andrew. 2000. Dangerous Tastes: The Story of Spices

Goodall, Jane. 2005. Harvest for Hope: A Guide for Mindful Eating

Prance, Sir Ghillean and Mark Nesbitt. 2005. The Cultural History of Plants. Routledge,

Schlosser, Eric. 2005. Fast Food Nation: The Dark Side of the All-American Meal.

Pollan, Michael. The Omnivores Dilemma.

Roberts, Wayne. No-Nonsense Guide to World Food

Shiva, Vandana. Stolen Harvest: The Hijacking of the Global Food Supply

Shiva, Vandana. The Corporate Control of Life.

Time Magazine. Getting Real About the High Price of Cheap Food.

<http://www.time.com/time/health/article/0,8599,1917458,00.html>