

AGSC 100: Food, Agriculture, and the Environment

Fall 2004

TR 9:00 – 10:20 am BT 202A, R 2:00 – 3:50 pm MG 2026

Instructor: Dr. Charlie Apter
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Phone: 785-4584 (Office) or 665-1225
Office Hours: MWF 8:30-9:20 am, 10:30-11:30 am, or by appointment
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Description and Objectives

A multidisciplinary study of the structure and function of agricultural systems. Some emphasis will be placed on the consequences of using science and technology in agriculture, both for humanity and the environment. We will also emphasize connections with our agricultural past and where our food originates. Specific objectives for the course are:

1. to teach about science and the scientific method through the study of agriculture. To consider the social and environmental consequences of using science and technology. To help students learn how to obtain scientific and technical information.
2. to provide students with information about how food is produced and delivered. Educated people should know where their food comes from, how it arrives to them, and how to ensure a sustainable supply.
3. to provide students with hands-on experiences which show them the connection between what they learn in lecture or readings with what happens in the real world.
4. to ask students to think carefully about their own values and the values of other people with respect to land, water, livestock, and humans and to ask students to consider the plight of hungry people and the difficulties of feeding them.
5. to provide students with an interdisciplinary course which asks them to integrate and use knowledge from the humanities, science, and social science to study the single topic of agriculture.
6. to provide students with further practice in problem solving.

Text: No textbook is required.

Lecture Schedule: We will spend approximately 1/3 of the semester talking about “philosophy” – the origins of agriculture, its importance to the consumer and to the economy, 1/3 of the semester on animal agriculture, and 1/3 on plant agriculture. The tentative lecture schedule is as follows:

WEEK	TOPIC(S)
1 (8/30)	Agriculture: definitions, history, domestication
2 (9/6)	Scientific method, hypothesis testing, use of statistics
3 (9/13)	Land and soils
4 (9/20)	Soil nutrients and fertilizers
5 (9/27)	Nutrient cycles and the environment
EXAM 1: September 30	
6 (10/4)	Photosynthesis and energy
7 (10/11)	Crops: types, kinds, nomenclature, functions
8 (10/18)	Cropping systems
9 (10/25)	The green revolution and genetic diversity
EXAM 2: October 28	
10 (11/1)	Livestock: Types and distribution, digestion and digestive systems
11 (11/8)	Digestive systems, nutrients
12 (11/15)	Meat: Composition, food-borne illnesses
13 (11/22)	Reproduction
14 (11/29)	Dairy: Production, processing, rBST
EXAM 3: December 2	
15 (12/6)	Population growth and hunger
FINAL EXAM: Thursday, December 16, 2004, 7:30-9:20 am	

Examinations and Grading

Exam 1 (September 30).....	100 pts
Exam 2 (October 28).....	100 pts
Exam 3 (December 2).....	100 pts
Final (December 16, 7:30 am).....	200 pts (comprehensive)
Group project (lab)	
Hypotheses (September 9).....	0 pts
Written proposals (September 16).....	50 pts
Written and oral reports (December 9).....	150 pts
Laboratory reports (total of 120 points)	
Familiarization with scientific publications	20 pts
Soil Sampling, Surveys, and Testing.....	20 pts
Soil Texture Analysis worksheet	20 pts
Seed Viability.....	20 pts
Crop productivity lab	20 pts
Statistics exercise	20 pts

Grades will be calculated as a percentage of the 820 total points possible. Letter grades will be assigned as follows:

90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
Below 60	F

Please note that students are not allowed to keep their tests; after grading, tests are handed back to the student and are reviewed, but are then returned to me.

Policy on absences and missed work

1. Excuses for unauthorized absences will not be accepted.
2. An authorized absence does not excuse the student from any missed work.
3. Permission for making up any missed work will be granted only for authorized absences arranged in advance of the absence or in the case of sickness, injury, or death in the family. In these cases, it is the responsibility of the student to notify the professor as soon as is possible. In the case of absence due to sickness, the student must present verification of the illness from the Student Health Center or family doctor.
4. Work missed due to unauthorized absence cannot be made up and a grade of zero will be recorded. Work missed due to an authorized absence must be made up or will be assigned a grade of zero.

Academic Dishonesty

Students are expected to do their own academic work. Any student involved in cheating on an examination or in any other form of academic dishonesty will be subject to disciplinary action, including suspension or expulsion from the class, the student's academic program, or Truman.

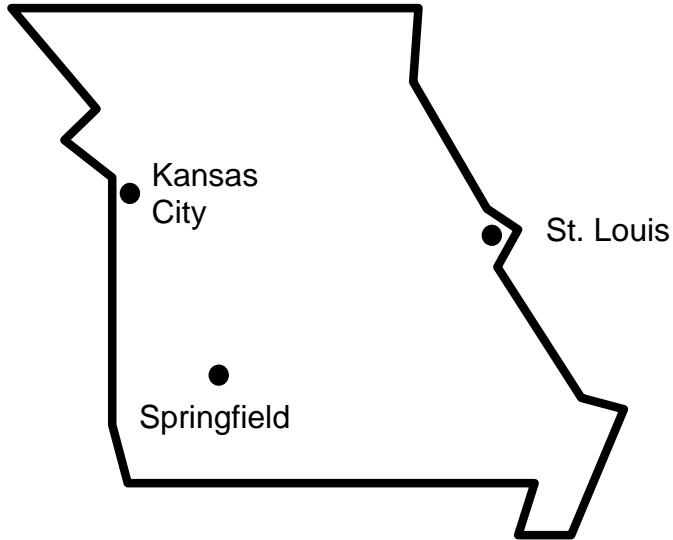
AGSC 100 Student Information Sheet

Name and SSN _____

Campus address _____

Campus phone _____

Where are you from? If from Missouri, please mark the location on the map.



Please describe your experiences with agriculture (if any).

Are you from a rural or urban area?

What is your current perception of agriculture (either plant or animal)? This might include perceptions of animal rights/welfare issues and the production of meat/milk/eggs, or concerns regarding the use of genetically modified plants or animals in the human diet.

What is one aspect of agriculture that you'd like to learn more about?
