

## **SUSTAINABLE AGRICULTURE 490**

### ***INTEGRATION OF SUSTAINABLE AGRICULTURE PRINCIPLES***

#### **Time and Place**

To be determined; 2, 75 minutes lecture periods per week.

#### **Instructor**

Dr. Mark Williams  
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Office Hours: By appointment

#### **Course Description**

This course provides intensive experience in critical analysis of both quantitative and qualitative data. Students will examine complex scientific and social issues surrounding sustainable agriculture, mainly by reading and discussing significant work in the field. Course materials will demand that students deeply consider substantive ethical issues and global themes. Students will generate substantial intellectual products. Ultimately, students will be asked to use many kinds of data to evaluate the “sustainability” of different world agricultural systems, and to consider the implications of their evaluations.

Many capstone classes use hands-on learning. This class does not do so because a large part of the Sustainable Agriculture curriculum is devoted to hands-on work, primarily on farms. This class is intended to be a serious intellectual exercise, requiring and encouraging patient work of the mind. However, there will be no “made up” assignments or contemplation of contrived scenarios; all material considered will be actual and consequential.

## **Learning Objectives**

### Foundational knowledge

Students will hear what the most advanced thinkers in the field have to say about agriculture from environmental, economic, and social perspectives. Students will not be expected to memorize any particular piece of information, but will know the main concepts and concerns that shape current debates in agriculture.

### Learning to learn

Students will be able to use powerful databases and will cultivate relationships with other professionals such as reference librarians. Students will know the primary publications in sustainable agriculture. Students will practice refining too-broad questions to researchable questions.

### Application or skills

Students will be able to approach research papers and other primary sources with confidence that they can read the paper and know how to proceed, including seeking extra information if they don't understand something. Students will practice critical analysis of data. Students will practice formal writing and presentation skills.

### Human dimension

Students will read multiple sides of debates in sustainable agriculture, and will be asked to consider the importance of others' values and ideas. Students will study agriculture in other parts of the world and identify common values and needs among regions.

### Integration

Students will be asked to bring knowledge from their previous coursework and experiences to bear on the issues in this class. Students will be asked to identify sources for their information and comments, recognizing that their experiences have provided valuable information but that more information is available and needed, and that more ways of seeing the world exist.

## **Potential Readings**

(subject to change based on previous coursework and availability of new materials in a given semester)

Selected articles from a variety of natural science and social science agricultural journals, including international (non-European, American)

Biological Approaches to Sustainable Soil Systems

Environment (Jules Pretty, ed.)

Agri-culture: Reconnecting People, Land, and Nature (Jules Pretty)

World Agriculture: An FAO Perspective (FAO)

Agroecosystems analysis (Diane Rickerl and Chuck Francis, ed.)

## Potential Topics – Environment, Economics, Society

International entities involved in agricultural research, policy, or advocacy (Society)  
American agriculture's relationship with international systems (Economics and society)  
Agricultural systems in tropical, temperate, arid, prairie, montane, and tundra biomes (Environment)  
Urban agriculture (Economics and society)  
Women's and children's role in agricultural production (Society)  
Contribution of small and large farms to world food and fiber production (Environment and economics)  
Major current advances in food production technology, and their implications (e.g. high-yielding grain varieties, new pesticides) (Environment, economics, and society)  
Major current barriers to food production and their implications (e.g., high cost of nitrogen, increasing desertification, lack of production expertise) (Environment, economics, and society)

## Grading

Course reading and participation in classroom discussion – 30%	90-100%	A
Multiple short class presentations – 15%	80-89%	B
Major class presentation – 20%	70-79%	C
Multiple short writing assignments – 15%	60-69%	D
Major writing assignment – 20%	Below 69%	E

## Attendance

Because active participation counts in the grade, attendance is required. Students may be absent 2 times during the semester with no questions asked, but further unexcused absences will impact grades. Excused absences are described in the student code of conduct at <http://www.uky.edu/StudentAffairs/Code/part2.htm>, Section 5.2.4.2. **If students cannot attend class regularly, they should consider dropping the course**

## Plagiarism

Part II of *Student Rights and Responsibilities* ( <http://www.uky.edu/StudentAffairs/Code/part2.html>) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about a question of plagiarism involving their work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgment of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else's work, whether it be published article, chapter of a book, a paper from a friend or some file, or whatever. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be. Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone.

When a student's assignment involves research in outside sources or information, the student must carefully acknowledge exactly what, where and how he/she has employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain. (Section 6.3.1).

The minimum penalty for an academic offense, such as cheating or plagiarism, is an 0 on the assignment. Repeated offenses will result in more serious penalties.

## **Special Consideration**

Accommodation will be provided for documented physical or learning disabilities. If students have other special situations that will affect their participation or work, they should see the instructor.