

SUSTAINABLE AGRICULTURE 395

RESEARCH IN SUSTAINABLE AGRICULTURE

Time and Place

SAG 395 is based on independent research by the student in conjunction with a research mentor. However, there are specific instances that require meeting with the Course Coordinator.

Orientation. An orientation session will be held during the first week of each academic semester. The Course Coordinator should be contacted for information about the time and place of this meeting.

Individual work schedules. Students are required to coordinate their research work schedules with their faculty mentors.

Mid-semester meeting. All students enrolled in the course will meet near the mid-point of the semester to present a 15 minute oral overview of the research project goals and progress to date.

End of semester presentations. All students enrolled in the course will meet near the end of the semester to present a 20 minute oral presentation of the project research findings. In addition, students will be required to submit a written research report at that time.

Course Coordinator

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Course Description

This course provides a vehicle by which students conduct independent research related to some aspect of sustainable agriculture under the direction of a faculty mentor. The research may be conducted in the College of Agriculture, another unit on campus, or at an approved off-campus entity. *A research proposal signed by the student and the research mentor must be reviewed and approved by the Sustainable Agriculture Program Director and Course Coordinator prior to the commencement of the project.*

Projects can include, but are not limited to, laboratory experiments, field-based research, and studies involving sociology, economics, anthropology, or related disciplines. There is a clear expectation that quantitative data collection and analysis will be integral to the research project.

Students are strongly encouraged to identify a research mentor prior to enrolling in SAG 395. In addition, students should discuss their preliminary research plans with the Course Coordinator in the semester *prior* to enrolling in the course.

Although the primary objective of the course is completion of an independent project, an important element of research is effective communication of results and data interpretation. Therefore, students will be required to provide two oral presentations of their research progress and a written report which details and summarizes research findings and data interpretation.

Learning Objectives

The specific learning objectives for individual students will be explicitly stated in the Research Proposal that is developed by each student in consultation with their research mentor.

SAG 395 is, by its nature, a very individualized course. Since each student will conduct an independent research project under the direction of a research mentor, the student-mentor relationship is very important and expectations on both sides should be discussed prior to the commencement of the project. These should include, but are not limited to, specific duties of the student, experimental objectives, measurable and achievable learning objectives, specific assignments from the mentor, and specific time schedules and deadlines.

Note that all research proposals must be reviewed and approved by the Sustainable Agriculture Program Director and Course Coordinator prior to the commencement of the project.

In a more general sense, upon completion of this course, students will be able to:

- effectively gather and interpret relevant literature and information resources related to the project area.
- develop testable hypotheses and experimental plans.
- collect and analyze research data and results.
- communicate research goals and findings in oral and written formats.

Performance Evaluation

There is a clear expectation on the part of the Sustainable Agriculture Program that students will be engaged in substantive research activities that, while guided by the mentor, represent the student's own efforts and creative thought. An acceptable research experience must be more than a student being "a pair of hands" in the collection of data or routine laboratory and/or field work. The student is expected to perform largely independent research. While it is acceptable for the project to be a part of a larger group effort, the project must be identifiable as an independent element that represents the student's efforts.

There is no final examination in this course. Grades are determined on a cumulative scale of 100 points calculated as follows:

Evaluation by research mentor	40 points
Mid-semester oral presentation	15 points
End of semester presentation	20 points
Final written report	25 points

The general letter grade assignments will be as follows:

≥ 90 points	A
80-89	B
70-79	C
61-70	D
≤ 60	E

Description of components ^a

Evaluation by research mentor. This is determined after interview of the research mentor by the course coordinator. The evaluation will include, but is not limited to, the student's ability to (i) fulfill the research project objectives described in the learning contract, (ii) reliably perform work in a timely manner, and (iii) demonstrate creative thought in understanding, analyzing, and interpreting relevant past research as well as their own experimental and/or study data.

Mid-semester oral presentation. All students will be required to meet with the Course Coordinator at a mutually agreeable time near the mid-term of the semester. Each student is expected to provide a 15 minute overview of their project and its progress to date. This overview should include the project objectives, underlying hypothesis, supporting material that explains the relevance and significance of the project, basic experimental approaches, and any results to date. Students should be prepared to answer questions posed by other students, faculty, and the Course Coordinator regarding the project.

End of semester presentation. All students will be required to meet with the Course Coordinator at a mutually agreeable time near the end of the semester. Each student is expected to provide a formal 20 minute presentation that details their project. This presentation should include the project objectives, underlying hypothesis, supporting material that explains the relevance and significance of the project, basic experimental approaches, results, and implications. Students should be prepared to answer questions posed by other students, faculty, and the Course Coordinator regarding the project.

Formal written report. All students will be required to submit a formal written report that details and summarizes the research project. This report must be submitted towards the end of the semester prior to a date determined by the Course Coordinator; the date will be communicated to students during the first two weeks of the semester. The report should take the general form of a scientific manuscript and should not exceed 10 pages in length (double-spaced and exclusive of literature citations, tables, and figures). The required format will be communicated to students.

^a Specific dates and submission deadlines for these components will be determined during the first two weeks of each semester.

Course Policies

Research Proposal. A formal research proposal must be developed by the student in consultation with the research mentor. It is strongly advised that students identify a research mentor *prior to enrolling* in SAG 395. In addition, students should discuss their preliminary research plans with the Course Coordinator in the semester *prior* to enrolling in the course.

Note that all research proposals must be reviewed and approved by the Sustainable Agriculture Program Director and Course Coordinator prior to the commencement of the project.

The research proposal format guidelines can be obtained from the Course Coordinator.

Attendance of mid and end of semester meetings: Attendance of these sessions is mandatory. Since an important component of this class is active participation and observation of presentations, class attendance is essential to succeed in the course. Policies for excused absences are those of the University.

Cheating and 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.