

CROPS/SOILS/HORT 495
Research Experience for Undergraduates

Justification and Goals

One of the goals of the WSU Strategic Plan is to strengthen the undergraduate students' experience at a research university. The course is aimed at providing undergraduate students the opportunity to interact one-on-one with faculty mentors within and across departments and gain a more in-depth understanding of literature reviews, experimental design, implementation, and interpretation of research. Students in Horticulture, Crop Science and Soil Science currently have little opportunity to develop their independent research skills except through part time work experience. This course is expected to allow students to be involved with 'hands on' research and work closely with individual faculty.

Credit

Variable credit (1 to 4) makes the course flexible in the number of contact hours required as part of the research experience. Making the course repeatable allows a student to participate in several different research projects, or in long term, on-going research. Students are required to present a research poster or write a paper summarizing their research at the completion of each semester.

Form of Instruction

The form of instruction will be field or lab research with supervision by a research supervisor. Students must meet with the research supervisor before registering for the class. The course would be restricted to undergraduate students.

Class Time

To be arranged.

Proposed Text Book

No textbook requirement. Research literature as recommended by the faculty mentor.

Objectives/Expectations

1. To provide students the opportunity to develop independent research skills.
2. To develop a research paper or poster on their research project.
3. Research supervisors and students will be required to complete an agreement form outlining the expectations of the research and associated costs. The agreement should specify hypothesis, objectives, proposed methods, time schedule, and end product.

Grading

Grades will be based on demonstration of critical thinking skills used in developing, interpreting, and executing the research. These grades will be based on the student and research supervisor's expectations stated in their initial agreement form. Grades will also be based on the research paper or poster.

1. Research planning and execution 70%
2. Research paper or poster 30%

Grading Scale

100-93%	A	76-79%	C+
90-92%	A-	73-75%	C
86-89%	B+	70-72%	C-
83-85%	B	66-69%	D+
80-82%	B-	62-65%	D
		< 62	F

Suggested Course Outline (will vary with credits taken and research project conducted)

Week 1 = Lab/field orientation and safety

Weeks 2 to 4 = Literature review and development of a hypothesis with submission of research agreement plan to the instructor in Week 3.

Week 5 = Propose materials and methods

Weeks 6-12 = Research activity

Week 10 to 14 = Summarizing (tables, graphs, etc.) and analyzing results

Week 14-15 = Research poster or paper preparation

Week 15 = Poster or paper due to the instructor

Disability statement

“Reasonable accommodations are available for students who have a documented disability. Please notify the instructor during the first week of class of any accommodations needed for the course. Late notification may cause the requested accommodations to be unavailable. All accommodations must be approved through the Disability Resource Center (DRC) in Administration Annex 206 (Tel. 335-1566).”

Cheating (WAC 504-25-310)

Cheating is the intentional use of, or attempt to use, unauthorized material, information, or study aids in any academic activity to gain advantage. Cheating includes, but is not limited to, communicating improperly with others, especially other students, during tests or the preparation of assignments for classes; copying from books, notes, or other sources during a test when this is not permitted; copying from another student’s work (reports, laboratory work, computer programs, files, etc.); making improper use of calculators or other devices during a test; illegitimately procuring or using copies of current examinations; allowing a substitute to take an examination or write a paper for oneself.

Plagiarism (WAC 504-25-310)

Plagiarism is knowingly representing the work of another as one’s own, without proper acknowledgment of the source. The only exceptions to the requirement that sources be acknowledged occur when the information, ideas, etc., are common knowledge. Plagiarism includes, but is not limited to, submitting as one’s own work the work of a “ghost writer” or work obtained from a commercial

writing service; quoting directly or paraphrasing closely from a source without giving proper credit; using figures, graphs, charts, or other such material without identifying the sources.

Academic Integrity Processes (WAC 504-25-315)

Every act of academic dishonesty affects academic evaluation of the student and also is a violation of the University's standards of conduct. Responsible instructors retain the authority and responsibility to assign grades to students, considering from an academic standpoint the nature of the student's action. This is the case even when the case is referred to the University Academic Integrity Process. Students have recourse to appealing the responsible instructor's assignment of grades according to usual academic policy. See Academic Regulation 104.

All clear instances of academic dishonesty shall be reported to the Office of Student Conduct as outlined in 504-35-335(2). The first reported instance at WSU of academic dishonesty by a student will be treated as purely an academic matter unless, in the judgment of the responsible instructor, more serious action should be taken through the disciplinary process. Any allegation of subsequent academic dishonesty will be treated as a matter to be referred to the Office of Student Conduct

Reports of Academic Dishonesty (WAC 504-35-320)

Any member of the University community who witnesses an apparent act of academic dishonesty shall report the act either to the instructor responsible for the course or activity or to the Office of Student Conduct.

WSU Safety Procedures

Washington State University is committed to maintaining a safe environment for its faculty, staff, and students. Safety is the responsibility of every member of the campus community and individuals should know the appropriate actions to take when an emergency arises. Please, go to:

WSU Pullman Campus Safety Plan at: <http://safetyplan.wsu.edu>

WSU Emergency Management web site: <http://oem.wsu.edu/emergencies>

WSU Tri-Cities Campus Safety Plan at: <http://www.tricity.wsu.edu/safetyplan/>