

PLS/AES 395

INDEPENDENT RESEARCH IN PLANT AND SOIL SCIENCES

Semester:	Fall 2022
Credit Hours:	1-4
Meeting Days/Time/Location:	All required interactions are online asynchronous

Instructor Information

Coordinating Instructor: David H. McNear Jr.

Office Building & Room Number: N122S Ag Science Center North Bldg

Email: dave.mcnear@uky.edu

Office Phone: (859) 257-8627

Virtual Office Hours: Available upon request via Zoom

Preferred Method of Communication: Email is best for the most quick-response to questions. Phone calls or Zoom appointments are best for more in-depth questions. For time-sensitive questions, please call your research mentor, leave a message with a call-back number, and the your mentor will call you back. Students should contact their mentor again if they have not received a response within a few hours (phone call) or within 12 hours (email). Only in rare cases and on weekends might the mentor not respond to students within 24 hours. If all else fails, contact the coordinating instructor.

Course Description

Directed independent research under the supervision of a faculty member on a selected topic in plant and soil sciences of agricultural ecosystem sciences. May be repeated to a maximum of 9 credits.

Course Prerequisites

Completion of a learning contract reviewed and signed by the research mentor and the director of undergraduate studies.

Skill Requirements

No specific technical/digital literacy skills are required.

Student Learning Outcomes

By the time you successfully complete this course, you should be able to:

1. Review and synthesize previous work done in the field of interest.
2. Propose research hypotheses that contribute to the literature in a meaningful way.
3. Collect and construct data relevant to testable hypotheses.
4. Analyze data using appropriate empirical methods and synthesize into a final written report and/or presentation.

Required Materials

All required videos and readings are distributed free of charge via UK's Canvas learning management system (<https://uk.instructure.com/>). Submission portals for all graded assignments and links to the syllabus are also available via Canvas

Technology Information and Requirements

Technology Requirements

Minimum technical requirements for UK courses and suggested hardware, software, and internet connections are available at [ITS Student Hardware & Software Guidelines](#).

Technical Support

For account help, contact UK's [Information Technology Customer Services online](#), by [email](#), or by phone at 859-218-HELP (4357).

UK students that are unfamiliar with how to use or who experience problems with Canvas should visit <http://guides.instructure.com>, contact Canvas Support at 844-480-0838 (24/7 availability), or contact the instructor. Students may also contact the UK Information Technology Service Center (<http://www.uky.edu/ITS> or 859-218-4357). For general questions about online courses and programs at UK, contact: <http://www.uky.edu/ukonline/>.

Activities and Assignments

Course Assignments

Learning Contract: With direction and input from their research mentor, students must complete a learning contract that describes the student's individual learning goals, methods to employ, and anticipated project or research results. The learning contract shall outline expected due dates and any alternate grading plans or expectations if different from those listed below (Required to enroll in the course 12 % of the final grade).

Research Report/Paper: With direction and input from their research mentor, students must prepare a highly-polished (i.e. the paper should go through multiple draft and rewrite cycles with the research mentor) written paper that is 5-10 pages in length (double-spaced, 1" margins, Time New Roman, 12 point font) that address all of the research questions, methods, and findings from the student's learning contract. (48 % of the final grade)

Supervisor Evaluation: You will provide your employer with either a hard copy (at end of this syllabus or on the Canvas course page) or link to where they can complete an evaluation of your performance during the internship. This survey must be completed and turned in directly to Dr. McNear @ dave.mcnear@uky.edu to receive a grade.

Recorded Presentation or poster: With direction and input from their research mentor, students must prepare a highly-polished recorded presentation that is 3-10 minutes long and that describes what they discovered as a result of their independent study. Upload your recorded presentation to Canvas as a .MOV, .MP4, or other similar video-ready file format. Alternatively, a professional meeting style and quality poster can be created using the template provided in Canvas (24% of the final grade)

Updated Resume: For this assignment, you must update, review, and polish your resume. Your updated resume must include your research experience information. You are expected to use this opportunity to review (literally, "re-view" or "re-see") your entire resume with a fresh set of eyes. You should reconsider how you have organized your resume and the wording. (7% of the final grade)

Submission of Assignments

Unless specified otherwise by the faculty mentor, students will upload their work to Canvas by the due date and time specified in the student's learning contract.

Course Grading

Expectations for undergraduates

Grading scale:	90 – 100% = A
	80 – 89% = B
	70 – 79% = C
	60 – 69% = D
	Below 60% = E

Mid-term Grade

Midterm grades will be posted in myUK by the deadline established by the University Senate and published in the [Academic Calendar](#).

Resources

[Distance Learning Library Services](#)

[Carla Cantagallo](#), Distance Learning Librarian, 859-218-1240

Tentative Course Schedule

The student and faculty mentor shall agree on a course schedule, including due dates and times for all required assignments and meeting times or schedules and planned locations. The individual student learning contract shall detail all due dates and times for all required assignments and meetings.

Assignment	Timeline and Due Date	Points
1. Learning Contract	Before starting the internship	25
2. Research Report/ Paper	Due no later than one month after the last day of leaving the lab	100
3. Supervisor Evaluation	Request after completing the research experience	20
4. Updated Resume	Due no later than two weeks after leaving the lab	15
5. Recorded Presentation or poster	Due no later than one month after the last day of leaving the lab	50
	Total Points	210

Attendance Policy

Unless specified otherwise in the individual student learning contract, students that miss required assignments, exams, or other required interactions for excused reasons should inform the instructor as soon as possible but no later than one week following the period of excused absence (Senate Rules 5.2.5.2.3.3).

Classroom Behavior Policies

All participants in this course are expected to show consideration and respect for other students and their ideas and to meet appropriate standards of tolerance, decorum, and civility. Students are encouraged to discuss any grievances that they may have regarding the course with their faculty mentor or DUS as soon as possible. Students who wish to dispute a course policy or grade on an assignment or exam must present their concerns to the faculty mentor in writing, including a justification for a policy or grade change.

Official Communication

All official course communications are sent to students' official UK email accounts directly or via UK's learning management system (Canvas). Students should check their UK email accounts each weekday. To

protect students' privacy, the instructor may not respond to email communications that do not originate from an official UK email address (e.g., first.last@uky.edu or first.last@g.uky.edu).

Standard University Rules

Midterm Grades for Undergraduate Students (Senate Rules 6.1.3.1)

Midterm grades will be posted in myUK by the deadline established by the University Senate and published in the [Academic Calendar](#).

Excused Absences (Senate Rules 5.2.5.2.1)

Senate Rules 5.2.5.2.1 defines the following as acceptable reasons for excused absences: 1. significant illness; 2. death of a family member; 3. trips for members of student organizations sponsored by an educational unit, trips for University classes, and trips for participation in intercollegiate athletic events; 4. major religious holidays; 5. interviews for graduate/professional school or full-time employment post-graduation; and 6. other circumstances found to fit "reasonable cause for nonattendance" by the instructor of record. Students should notify the professor of absences prior to class when possible.

If a course syllabus requires specific interactions (e.g., with the instructor or other students), in situations where a student's total EXCUSED absences exceed 1/5 (or 20%) of the required interactions for the course, the student shall have the right to request and receive a "W," or the Instructor of Record may award an "I" for the course if the student declines a "W." (Senate Rules 5.2.5.2.3.1)

If an attendance/interaction policy is not stated in the course syllabus or the policy does not include a penalty to the student, the Instructor cannot penalize the student for any unexcused absences. (Senate Rules 5.2.5.2.3.3)

Verification of Absences (Senate Rules 5.2.5.2.1)

Students may be asked to verify their absences in order for them to be considered excused. *Senate Rule 5.2.5.2.1* states that faculty have the right to request appropriate verification when students claim an excused absence due to: significant illness; death in the household, trips for classes, trips sponsored by an educational unit and trips for participation related to intercollegiate athletic events; and interviews for full-time job opportunities after graduation and interviews for graduate and professional school. (Appropriate notification of absences due to University-related trips is required prior to the absence when feasible and in no case more than one week after the absence.)

Programs with learning activities mandated by accreditation or licensure agencies may establish, as a matter of policy, educational consequences for students who have so many excused absences that they cannot complete the mandated learning activities. Pursuant to Senate Rules 6.1.1, the published program policies and individual course syllabi must describe these consequences, which may include the student being moved to a different graduation cohort.

Religious Observances (Senate Rules 5.2.5.2.1(4))

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays. Please check the course syllabus for the notification requirement. If no requirement is specified, two weeks prior to the absence is reasonable and should not be given any later. Information regarding major religious holidays may be obtained through [the Ombud's website](#) or calling 859-257-3737.

Make-Up Work (Senate Rule 5.2.5.2.2)

Except where prior notification is required, students missing any graded work due to an excused absence are responsible: for informing the Instructor of Record about their excused absence within one week following the

period of the excused absence; and for making up the missed work. The instructor must give the student an opportunity to make up the work and/or the exams missed due to the excused absence, and shall do so, if feasible, during the semester in which the absence occurred. The instructor shall provide the student with an opportunity to make up the graded work and may not simply calculate the student's grade on the basis of the other course requirements, unless the student agrees in writing.

For students who add a class after the first day of classes and miss graded work, the instructor shall provide the student with an opportunity to make up the graded work (quiz, exam, homework, etc.). The instructor may not simply calculate the student's grade on the basis of the other course requirements, unless the student agrees in writing.

Excused Absences and W/I, All Students (Senate Rule 5.2.5.2.3.1)

If a student has excused absences for more than one-fifth of the required interactions for a course, the student can request a "W." If the student declines a "W," the Instructor of Record may award an "I" for the course.

Excused Absences Due to Military Duties (Senate Rule 5.2.5.2.3.2)

If a student must be absent for one-fifth or less of the required course interactions (e.g., class meetings) due to military duties, the following procedure apply:

1. Once a student is aware of a call to duty, the student shall provide a copy of the military orders to the Director of the Veterans Resource Center. The student shall also provide the Director with a list of her/his courses and instructors.
2. The Director will verify the orders with the appropriate military authority and on behalf of the military student, notify each Instructor of Record via Department Letterhead as to the known extent of the absence.
3. The Instructor of Record shall not penalize the student's absence in any way and shall provide accommodations and timeframes so that the student can make up missed assignments, quizzes, and tests in a mutually agreed upon manner.

Accommodations Due to Disability

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (DRC). The DRC coordinates campus disability services available to students with disabilities. Visit the [DRC website](#), [email the DRC](#), contact them by phone at (859) 257-2754, or visit their office on the corner of Rose Street and Huguelet Drive in the Multidisciplinary Science Building, Suite 407.

Non-Discrimination Statement and Title IX Information

UK is committed to providing a safe learning, living, and working environment for all members of the University community. The University maintains a comprehensive program which protects all members from discrimination, harassment, and sexual misconduct. For complete information about UK's prohibition on discrimination and harassment on aspects such as race, color, ethnic origin, national origin, creed, religion, political belief, sex, and sexual orientation, please see [the electronic version of UK's Administrative Regulation 6:1 \("Policy on Discrimination and Harassment"\)](#). In accordance with Title IX of the Education Amendments of 1972, the University prohibits discrimination and harassment on the basis of sex in academics, employment, and all of its programs and activities. Sexual misconduct is a form of sexual harassment in which one act is severe enough to create a hostile environment based on sex and is prohibited between members of the University community and shall not be tolerated. For more details, please see [the electronic version of Administrative Regulations 6:2 \("Policy and Procedures for Addressing and Resolving Allegations of Sexual Assault, Stalking, Dating Violence, Domestic Violence, and Sexual Exploitation"\)](#). Complaints regarding violations of University policies on discrimination, harassment, and sexual misconduct are handled by the

Office of Institutional Equity and Equal Opportunity (IEEO), which is located in 13 Main Building and can be reached by phone at (859) 257-8927. You can also visit [the IEEO's website](#).

Faculty members are obligated to forward any report made by a student related to IEEO matters to the Office of Institutional Equity and Equal Opportunity. Students can *confidentially* report alleged incidences through the Violence Intervention and Prevention Center, Counseling Center, or University Health Services.

Academic Integrity– Prohibition on Plagiarism (Senate Rules 6.3.1)

Per University policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the University may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the [Code of Student Rights and Responsibilities](#). Complete information can be found on the [Academic Ombud](#) page. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Senate Rule 6.3.1 (see current [Senate Rules](#)) 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 content from another source without appropriate acknowledgment of the fact, the students are guilty of plagiarism.

Plagiarism includes reproducing someone else's work (including, but not limited to a published article, a book, a website, computer code, or a paper from a friend) without clear attribution. 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, except under specific circumstances (e.g. Writing Center review or peer review) allowed by the Instructor of Record or that person's designee. Plagiarism may also include double submission, self-plagiarism, or unauthorized resubmission of one's own work, as defined by the instructor.

Students may discuss assignments among themselves or with an instructor or tutor, except where prohibited by the Instructor of Record (e.g. individual take-home exams). However, the actual work must be done by the student, and the student alone, unless collaboration is allowed by the Instructor of Record (e.g. group projects).

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.

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

Academic Integrity – Prohibition on Cheating (Senate Rules 6.3.2)

Cheating is defined by its general usage. It includes, but is not limited to, the wrongfully giving, taking, or presenting any information or material by a student with the intent of aiding himself/herself or another on any academic work which is considered in any way in the determination of the final grade. The fact that a student could not have benefited from an action is not by itself proof that the action does not constitute cheating. Any question of definition shall be referred to the University Appeals Board.

Academic Integrity – Prohibition on Falsification/Misuse of Academic Records (SR 6.3.3)

Maintaining the integrity, accuracy, and appropriate privacy of student academic records is an essential administrative function of the University and a basic protection of all students. Accordingly, the actual or attempted falsification, theft, misrepresentation or other alteration or misuse of any official academic record of the University, specifically including knowingly having unauthorized access to such records or the unauthorized disclosure of information contained in such records, is a serious academic offense. As used in this context, "academic record" includes all paper and electronic versions of the partial or complete permanent academic record, all official and unofficial academic transcripts, application documents and admission credentials, and all academic record transaction documents. The minimum sanction for falsification, including the omission of information, or attempted falsification or other misuse of academic records as described in this section is suspension for one semester.

Diversity, Equity, and Inclusion

The University of Kentucky is committed to our core values of diversity and inclusion, mutual respect and human dignity, and a sense of community ([Governing Regulations XIV](#)). We acknowledge and respect the seen and unseen diverse identities and experiences of all members of the university community. These identities include but are not limited to those based on race, ethnicity, gender identity and expressions, ideas and perspectives, religious and cultural beliefs, sexual orientation, national origin, age, ability, and socioeconomic status. We are committed to equity and justice and providing a learning and engaging community in which every member is engaged, heard, and valued.

We strive to rectify and change behavior that is inconsistent with our principles and commitment to creating a safe, equitable, and anti-racist environment. If students encounter such behavior in a course, they are encouraged to speak with the instructor of record or the [college's diversity officer](#), who is charged with addressing concerns about diversity, equity, and inclusiveness. Students may also contact a faculty member within the department, program director, the director of undergraduate or graduate studies, the department chair, or the dean. To submit an official report of bias, hatred, racism, or identity-based violence, visit the [Bias Incident Support Services website](#).

PLS/AES 395 or 399
LEARNING CONTRACT

1. Please fill out this contract in consultation with your internship coordinator (395) or research mentor (399)
2. Once your contract is completed and both you and your advisor (395) have signed it, submit it via email to Dr. David McNear, PLS/AES Director of Undergraduate Studies, for final approval.
3. Upon final approval, Dr. McNear will register you for PLS/AES 399 or 395. There is no need to register yourself. **Please Note:** If you want credit for your internship, registration for 395/399 during the summer term will have tuition / fees assessed based on credits and residency status.
4. This Learning Contract must be completed, approved, and turned in **BEFORE** you begin your research or internship experience.

Questions? Contact: Dr. David McNear, AES Director of Undergraduate Studies, (859) 257-8627, dave.mcnear@uky.edu

STUDENT INFORMATION

Name: _____ Student Number: _____
 E-mail: _____ Cell Phone: _____
 Major: _____ Class Level: _____
 College: Agriculture Food and the Environment Year of Experience: _____

PLS395/399 COURSE REGISTRATION & RELATED INFORMATION

PLS/AES Course (circle one): 395 399 Number of credits (150 h/credit): _____
 Prefix (circle one): AES PLS Term (circle one): Summer Fall Spring
 Experience number (circle one): 1st 2nd 3rd

HOURS

Starting Date: _____ Ending Date: _____ Total Number of weeks: _____
 Avg. Hours Per Week: _____ Total Experience Hours: _____

ORGANIZATION/COMPANY OR LABORATORY INFORMATION

Organization/Company/Laboratory Name: _____
 Address: _____
 City/State/Zip: _____
 Supervisors Name: _____ Supervisors Title: _____
 Supervisors E-mail: _____ Supervisors Phone : _____

DESCRIPTION OF INTERNSHIP OR RESEARCH EXPERIENCE

Describe the responsibilities and duties:

List the expected learning **outcomes** for this experience:

(What do you expect to learn from this experience? Objectives should be measurable and achievable.)

Specify the assignments agreed upon with your faculty sponsor or internship coordinator (reference the activities and assignments section of the PLS399/395 syllabus):

Specify agreed upon dates and times for turning in assignments (e.g. reflections, paper outline, paper draft, interview). Dates/times may be specific or in general terms but "To be determined" is not acceptable.

SIGNATURES

PLS 395 STUDENTS ONLY

Research Advisor Name (print): _____

Department: _____

Campus Address: _____

Phone: _____ **Email:** _____

Research Advisor Signature: _____ **Date:** _____

Student Name: _____

Student number: _____

Student signature: _____ **Date:** _____

PLS/AES Director of Undergraduate Studies: David McNear

Department: Plant and Soil Sciences

Campus Address: N122S Agricultural Sciences North Bldg.

Phone: (859) 257-8627

Email: dave.mcnear@uky.edu

PLS/AES DUS Signature: _____ **Date:** _____