

North Carolina State University
Department of Plant Pathology

**Procedures for Registration and Completion of Research, Teaching,
Internship Activities for Credit Through Enrollment in PP 492 or PP 493**

Students should first select the course (PP 492 or PP 493) that is appropriate for the experience they plan to obtain. Read the descriptions of the courses below to determine which one is more appropriate.

PP 492: External Learning Experience. Total allowable credits 6, maximum credits per semester 3. May be taken fall, spring, or summer. Prerequisite: Sophomore standing. A learning experience in Agriculture and/or Life Sciences within an academic framework that utilizes facilities and resources *external* to the campus. Contact and arrangements with prospective employers/supervisors must be initiated by student and approved by the prospective employer/supervisor, student's academic advisor, and the Plant Biology Teaching Coordinator prior to the experience. Grading will be based on completeness and quality of final report as determined by employer/supervisor and teaching coordinator. Either an S or U grade will be assigned.

PP 493: Special Problems in Plant Pathology. Total allowable credits 6, maximum credits per semester 3. May be taken fall, spring, or summer. Prerequisite: Sophomore standing. A learning experience within an academic framework that utilizes campus facilities and resources. Contact and arrangements with prospective faculty mentors must be initiated by student and approved by prospective faculty mentor, student's academic advisor, and the Plant Biology Teaching Coordinator prior to the experience. Grading will be based on the completeness and quality of the final report as determined by the supervising faculty and teaching coordinator. Either an S or U grade will be assigned.

Guidelines for and Responsibilities of Students Enrolled in PP 492 or 493

Students should carefully read the following guidelines and responsibilities, and complete the attached contract. The signed contract should be returned to the Plant Pathology Teaching Coordinator, who will enroll students in either course in MyPack Portal for the approved number of hours. Students cannot enroll in PP 492 or PP 493 by themselves.

1. The student is responsible for arranging research/teaching/internship experience with the intended faculty mentor or off-campus supervisor. Graduate students, post-doctoral associates and/or university field or laboratory technicians or staff may **not** sign off on course contracts or approve final papers for PP 493.
2. The student should work with the faculty mentor or off-campus supervisor/employer to determine the appropriate number of credit hours for which the student should be enrolled. One credit hour is equivalent to approximately 40-45 hours of actual experience. Therefore, 2 credit hours equals approximately 80-90 hours and 3 credit hours equals approximately 120-135 hours.
3. The student is responsible for completing attached contract form (includes stating nature of experience, time involved, signatures, etc.) *prior* to being enrolled for credit.
4. The student is responsible for completing all tasks set forth in the contract, with reasonable flexibility for changes that may occur in the course of their project.
5. The Student is responsible to ensure all aspects of experience conform to the NC State University Code of Student Conduct, available online at: <http://policies.ncsu.edu/policy/pol-11-35-01>
6. A **final report is required** that documents the student's activities and results/outcomes of their experience. A final version of this report is due to (1) the specified faculty mentor or off-campus supervisor/employer, and (2) the Plant Pathology Teaching Coordinator **no later than** the second day of final exams of the semester in which the student is enrolled for credit.

**North Carolina State University
Department of Plant Pathology
PP 492, PP 492 Course Contract**

Students intending to enroll for credit in PP 492 (External Learning Experience) or PP 493 (Special Problems in Plant Pathology) should complete this contract with their intended faculty mentor or off-campus supervisor and return it to Dr. David Shew, Plant Pathology Teaching Coordinator, 2415 Gardner Hall.

I. ENROLLMENT INFORMATION

Student name (Print): _____

Student ID#: _____

Major: _____ **Academic Advisor:** _____

Course (circle one): PP 492 PP 493

Credit Hours (1-3): _____

Semester (circle one): Fall Spring Summer 1 Summer 2

II. PROJECT INFORMATION

Project Start Date (may be prior to start of enrolled semester, with approval): _____

Project End Date (must no be later than the last day of classes of enrolled semester): _____

Faculty Mentor (PP 493) or Off-Campus Supervisor (PP 492): _____

Email address: _____

If off-campus, Phone Number (if off campus): _____

Company or Business (if off campus): _____

Project Activities: These activities are to be agreed upon and developed cooperatively between student, faculty mentor / off-campus supervisor, and academic advisor.

General Description of Project: _____

Specific Activities Student Will Engage in During Project:

Estimated Time Allocation (%):

- | | | |
|----|--|--|
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |

Where, specifically, will the experience take place? In the laboratory, field, research station, off-campus facility, etc.?

What are the student's objective(s) in doing this experience/project? What do you expect to gain?

Comments by Faculty Mentor or Off-Campus Supervisor: _____

III. APPROVAL

We the undersigned, agree to and approve of enrollment in PP 492 or PP 493 for the credit hours and semester specified in this contract. We also acknowledge that the student must complete a final report on their project activities and submit it to (1) the supervising faculty mentor or off-campus experience supervisor and (2) the Plant Pathology Teaching Coordinator no later than the second day of final exams. The Plant Pathology Teaching Coordinator will consult with the faculty mentor or off-campus experience supervisor during final exams regarding the student's grade, but no grade will be awarded unless a final report has been received and approved by the mentor/supervisor.

Signed:

Student	Date	Faculty Mentor / Off-campus Supervisor	Date
Academic Advisor	Date	Dr. David Shew Plant Pathology Teaching Coordinator	Date

PP 492/493 Final Written Report Guidelines

The following guidelines should be followed when completing a written report for either PP 492 (External Learning Experience) or PP 493 (Special Problems in Plant Pathology). A written report is *required* in order for credit to be awarded, and must be submitted to (1) the supervising faculty mentor or experience coordinator listed on the course contract and (2) the Plant Pathology Teaching Coordinator *no later than the second day of exams of the semester in which the credit is being earned*.

Report Length and Format

There is no specified minimum or maximum length. Some reports may be longer than others depending on the scope and depth of the project. All reports should be double-spaced, have page margins between 0.5" and 1", and written in a standard font such as Times New Roman or Arial. A separate title page is not necessary.

You may attach evidence of your work having been presented or published in addition to the report. Examples of evidence include a one-page printout of a poster presented at a research symposium, slides used during an oral presentation of the work, a reprint or prepared manuscript of a journal article or extension publication on which you are an author, and copies of teaching materials developed (in the case of teaching-based projects).

Required Components

All reports should contain the components listed below. The majority of the report should be technical, written for a scientific audience and largely follow the format of a standard scientific paper, minus an abstract. All components should be clearly delineated as headings within the paper, and should be presented in order.

Title

Introduction

Materials and Methods

Results/Findings

Discussion

Conclusions and Impact

References*

Personal Reflection

Broader Impacts

*References and in-text citations should be formatted in a manner consistent with disciplinary journals, which should be discussed with your research or teaching mentor/supervisor. Footnotes generally should not be used.

Specific Guidelines for the Personal Reflection & Broader Impacts

The goal of a personal reflection is for you think about the significance of your work and how it has contributed to your overall training. Let this be an introspective activity. Think about what you have learned from the experience as a whole. Address the following as you construct the reflection, but do not respond to these items in question/answer format.

1. Why did you choose to undertake this particular experience or project? What drew you to it?
2. What skills and techniques did you learn? How did your level of expertise and responsibility increase as the project progressed?

3. How did your experience relate to your other coursework? What knowledge or skills from your courses did you use in your experience?
4. How did this experience influence your educational and/or career plans?

Broader Impacts

5. Scientists are often asked about “what they do” or what they are working on. Describe how you would explain your project to someone who is not a scientist. Explain how your project contributes to the knowledge in the discipline as well as the importance and potential impacts of your work.

Evaluation

Your report will be evaluated three times as follows:

1. Your experience faculty mentor or off-campus supervisor will evaluate your report and assign a grade by the time grades are due. Your mentor/supervisor may request that you make revisions to the report.
2. A faculty in the Department of Plant Pathology who is not your mentor/supervisor will also read and evaluate your report, providing feedback to you and the Plant Pathology Undergraduate Program Coordinator.
3. The Plant Pathology Undergraduate Program Coordinator will review the report as well as evaluations and comments from the two reviewers. They will also maintain a copy of the paper in the departmental office.