

PhD in Public Health Sciences

Research Experience

Mentored Research Experience

Overview

The mentored research experience provides opportunities for students to engage in different aspects of the research process with faculty mentors. Learning objectives include the conceptualization of research questions; the review, assessment, and synthesis of relevant literature; the operationalization of theoretical concepts and empirical questions; data collection; the analysis of data; and the interpretation and dissemination of findings.

In order to enroll in a research experience, students must first enroll in the appropriate course under their Program Manager's section and then complete the appropriate form. The forms require the following information: faculty instructor, faculty advisor, and research proposal (varies depending on the specific research experience). This form is also used to track the student's progress in the program. Once this form is completed, the registrar's office will move the student into the correct section with their faculty instructor so the instructor is able to assign a grade at the end of the semester.

Research Practicum

Students complete two required research practicum (RP) courses beginning in the spring semester of the first year; if desired, these may be completed during the summer:

Code	Title	Units
PHDC 9000	Practicum in Research I	2
PHDC 9001	Practicum in Research II	2

Two options exist for students to meet practicum requirements: 1) working on a faculty research project; or 2) conducting an independent research project under the guidance of a faculty advisor serving as the practicum instructor. The most important consideration during the student's RP should be developing the capacity for doing independent research. Students should have the opportunity to delineate and focus on a specific aspect of a larger project, which may become their major responsibility. RPs also allow students and faculty to develop a working relationship and potentially to connect in an advisor-advisee relationship.

Students who choose to conduct an independent research project for their RP are expected to collaborate closely with the practicum instructor on the design and implementation of a small-scale research project. In doing the project, the student should maintain close communication with the faculty member who has agreed to serve as their practicum instructor. The practicum instructor is responsible

for ensuring that the student has developed appropriate and feasible learning objectives and for evaluating student progress toward those objectives. Regardless of project type, students are encouraged to write publishable articles reporting the results of their research.

Students are expected to spend approximately 225 hours per semester (an average of 15 hours per week) in RP-related activities. *PhD students earn 2 credits for each course, for a total of 4 credits.*

The process for enrolling in an RP is as follows:

1. Students actively engage with faculty during their first and second semesters and develop an RP proposal. The written statement, prepared in collaboration with the RP instructor, describes the research activities and states the learning objectives. The proposal must indicate the tasks for each of the semesters of practicum work on the project. It is essential that the proposal indicate how the practicum will contribute to the student's capacity to perform independent research. While students may receive pay for these experiences, it is critical that there be specific academic products obtained or skills learned related to student objectives, not just meeting the task requirements of a funded research project.
2. The student enrolls in the appropriate course number for Practicum in Research I or II under the Program Manager's section.
3. The student uploads the written proposal as part of the Mentored Research Experience Form found on the SPH Student Resources page. The form requests approval from the practicum instructor, the faculty advisor, and the Program Director. After approval by the Program Director, the registrar enrolls students into a specific RP section under the practicum instructor's name. *All forms must be completely approved before the course add/drop day for the semester.*
4. The practicum instructor evaluates the student's practicum performance. Evaluation is based upon the student's performance in executing the tasks set forth in the written practicum proposal. The evaluations assess the student's attainment of knowledge as it relates to the research and the student's ability to prepare for scholarly research. The practicum instructor submits a grade at the end of the practicum. Students should make sure they get their grade for the practicum. If the grading deadline is missed, students should contact their Program Manager.

First-year doctoral students may not enroll in an RP during their first semester without approval from the Program Director. If the student has completed all courses with at least a B average and no Incompletes, they may sign up for an RP for the subsequent semester. Students and the supervising faculty outline a plan for the RPs along with completing the electronic form that is approved by the advisor and PhD Program Director. Practicum instructors typically are full-time Washington University faculty who have demonstrated competence in the social sciences or in research relevant to the field of public health. Final approval for a particular RP rests with the student, the faculty advisor, and the Program Director. Practicum instructors who are located outside of Washington University complete the same

electronic RP form and follow the same guidelines as Washington University members. The instructor mentoring RPs for credit cannot be a student and must have grading privileges at Washington University to serve in this capacity.

Students are encouraged to explore a variety of practicum placements prior to making a final decision. Initial plans for RPs should involve discussions with the faculty advisor. The student should explore specific possibilities for a given practicum with the practicum instructor. These discussions eventually lead to a written practicum proposal that must be agreed to by the student, the practicum instructor, and the faculty advisor.

Expectations of educational experiences in RPs align with the phases in applied social research. The below list serves as a general guide for discussing RP opportunities during the various research phases. The list covers more than any particular student is likely to achieve across RPs. Instead, the purpose is to help inform doctoral students so they can look carefully at RP opportunities, consider areas of learning with faculty members, negotiate for areas that are of particular interest and importance, and, in general, make more informed choices and agreements regarding the RP.

Topics for RP Discussions

Developing Questions

- Mastery of substantive knowledge
- Identification of key research questions
- Selection and use of theory
- Specification of propositions and hypotheses

Research Design, Proposal Writing, and Seeking Funding

- Designing a research project
- Developing a research proposal
- Submitting a proposal to a potential funder

Population and Sampling

- Identification of the population of interest
- Mastering sampling issues

Measurement and Instruments

- Identifying and/or creating valid and reliable measures
- Constructing questionnaires and other research instruments
- Piloting and ensuring the language equivalence of instruments and measures

Collecting Data

- Making field arrangements for data collection
- Conducting interviews and other forms of data collection
- Managing data collection for a large project

Preparation and Management of Data

- Entering and "cleaning" data
- Making arrangements for use of an existing dataset
- Management and manipulation of a dataset
- Merging two or more datasets

Data Analysis

- Using advanced quantitative techniques
- Using advanced qualitative techniques

Reporting

- Writing research reports in various forms: reports, poster presentations, working papers, peer-reviewed articles
- Attending and presenting at professional and academic meetings
- Submitting articles to professional and academic journals

Ethics and Human Subject Research

- Developing and modifying Institutional Review Board protocols
- Learning how to conduct informed consent
- Executing Institutional Review Board protocols and trainings
- Developing annual continuation reports
- Learning how to work with Data and Safety Monitoring Boards
- Conducting community-engaged research
- Working on community advisory boards
- Identifying and partnering with community members

Discussions With Potential Practicum Mentors

- Invite the student to share any research products they would like to work on during their assistantship. If the student does not have specific projects, offer a few options that fit with the skills they are hoping to develop. (**Note:** If the RP product is a student's own project, the execution of the following steps should be catered to the circumstance.)
- Invite the student to share what research skills they are hoping to develop during the assistantship.
- Explore the student's learning style.
- Share your approach to research supervision; explain the best way(s) to communicate with you.
- Discuss and agree upon a realistic, deliverable RP product.
- Discuss the authorship of any product(s) in accordance with the WashU authorship standards
- Brainstorm product tasks, set deadlines, and discuss grading criteria.
- Schedule recurring meetings.
- Write down and sign RP details.
- Prior to the meeting:



- Jointly set the agenda.
- Clarify if/what portions of the product should be submitted for feedback.
- Specify the desired format of the product for feedback.
- During the meeting:
 - Provide constructive feedback.
 - View meetings as opportunities to teach skills.
 - Forecast the next step and check with the student about their degree of confidence in executing the next step.
 - Provide instruction to develop any skills needed to accomplish the next task, as needed.
- Provide overall feedback to the student regarding their grade for the RP (e.g., mid-term grade reports) so that the student has time to improve/correct their work and so they will not be surprised by their final grade.
- Submit the RP grade in a timely manner (by the faculty instructor).
- Miscellaneous qualities that have been endorsed as helpful:
 - View the RP student as a junior colleague.
 - Allow students to pursue their own relevant projects/papers with your input (i.e., a paper idea that may or may not fit with a current project but that does fit with your expertise).
 - Assign research tasks that are appropriate for PhD-level skill development. (These vary depending on the student's previous research experience.)
 - Avoid micromanagement.
 - Strive for a positive working relationship.
 - Check-in with the RP student periodically about how the practicum is going. (Is the practicum meeting their expectations? Is research supervision conducive to their learning?)

The faculty instructor assigns a Pass/No Pass grade at the end of the semester. Students should make sure they get their grade for the practicum. If the grading deadline is missed, the student should contact the Program Manager.

Note: *In order to maintain full-time status and not experience a lapse in health insurance coverage, students in year three and beyond who will be continuing enrollment in the fall semester should have their faculty advisor sign the Doctoral Continuing Student Status Form by July 31 ahead of each fall semester.* Failure to complete this task by the deadline can lead to a gap in health insurance coverage and a delay in the ability to enroll dependents. In addition, failure to be enrolled ahead of the add/drop date for the fall or spring semester can result in an inability to enroll/continue in the program for a minimum of one semester and a loss of student status and visa eligibility.

Full-time students are expected to spend 20 hours per week, on average, on research with faculty. **Note:** Students who have completed research and course requirements must enroll in PHDC 9900 Doctoral Research each semester until graduation.

Paid Research Experiences

Full-time students receiving stipends may engage in no more than 10 hours per week of paid research outside of PHDC 9900 Doctoral Research during the fall and spring academic semesters. Students may work up to 20 hours per week in paid research and/or teaching during the summer or after year five in their program. Paid research experiences are coordinated outside of the programs directly with employers. It is up to the student to ensure the work accords with university and employment policies. **Note:** Failing to comply with these policies jeopardizes full-time student status.

Doctoral Research

Doctoral students enroll in PHDC 9900 Doctoral Research after completing the required RP credits and coursework. Typically, this occurs during year three and beyond, but it should be used in any semester when the student will be enrolled in fewer than 9 credit units. Enrollment in PHDC 9900 Doctoral Research maintains full-time status for the student. This 0-credit course allows students to continue research with advisors or to engage in new research with other faculty mentors to build skills and working relationships. Students are expected to engage in mentored research experience with faculty through the entirety of their doctoral studies.

Similar to the RP, PHDC 9900 Doctoral Research allows students to delineate and focus on a specific aspect of a larger project that builds skills and provides opportunities for academic products. Students either partner on a faculty research project or conduct independent research under the guidance of a faculty advisor serving as the instructor. To enroll in this course, students must complete the Doctoral Continuing Student Status Form, which will trigger the registrar to enroll the student in the correct section. This form requires a brief written proposal (one to three paragraphs) that summarizes student expectations and requirements.