

Ph.D. in Public Health Genetics

Dissertation Guidelines

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I. Introduction

The overall goal of the Public Health Genetics (PHG) Ph.D. program is to train individual scholars for careers in academic institutions, health care delivery systems, public health departments, government agencies and the private sector. The program's objective is to train students through a combination of didactic courses, seminars, and research participation.

A dissertation for a Ph.D. degree in PHG is expected to be original research of the highest quality that makes a substantive contribution to this emerging discipline.

Please refer to the following "Ph.D. Suggested Timeline" link for information on expected time to complete each stage of the dissertation research project.
http://depts.washington.edu/phgen/phd/PhD_Suggested_Progress_Timeline.pdf

II. Choosing a topic

The student consults with his/her PHG faculty advisor or other PHG faculty members to identify an appropriate dissertation project that meets the requirements of the program. In the planning phase, students should consult extensively with faculty members for guidance regarding potential research questions, issues related to planning/timing, methodology, and potential dissertation committee members.

The dissertation project for the Ph.D. in PHG is intended to be an original research endeavor that contributes new knowledge relevant to this developing field. Thus, the

content of the dissertation is a defining element in the student’s course of study, especially for a multidisciplinary program such as PHG.

With the assistance of the supervisory committee, each student must provide a written dissertation proposal that incorporates the two core knowledge areas (A and B), one primary and one secondary. These two areas are summarized below.

Public Health Genetics Core Knowledge Areas

<i>A: Genomics in Public Health</i>	<i>B: Implications of Genetics for Society</i>
Genetic and Molecular Epidemiology	Ethics & Social Science
Ecogenetics & Pharmacogenetics	Law & Policy
Clinical Aspects of Genomics	Health Economics and Outcomes Research

The dissertation should demonstrate an understanding of the theory and methods related to the primary core knowledge area in which the dissertation topic is based. In addition, the dissertation should consider the relevance and appropriate background information for the secondary core knowledge area. Addressing the secondary core knowledge area could take the form of a separate chapter within the dissertation or the equivalent within the dissertation text. Dissertation topics that integrate the two core knowledge areas are also encouraged. The final decision about the appropriate content of the project rests with the Dissertation Supervisory Committee, and the study student should work closely with the committee to determine the most appropriate way to address these two core knowledge areas.

Examples of dissertation topics that incorporate Core Knowledge Areas A and B can be found at <http://depts.washington.edu/phgen/phd/examples.pdf>

III. Forming a dissertation committee

After a student has passed the preliminary exam and has developed a dissertation topic, the student may officially form the Dissertation Supervisory Committee. The Dissertation Supervisory Committee will guide the student’s dissertation research and will meet at least annually with the student. Dissertation committee members meet individually with the student and/or in groups as needed throughout the dissertation project.

The Dissertation Supervisory Committee must have a minimum of 4 committee members, including the chair and the Graduate School Representative (GSR). The student must identify a chair before registering for dissertation credits. The chair must be a member of the IPHG Academic Program Committee (APC) with expertise in the

primary core knowledge area in which the dissertation topic is based. The dissertation committee chair may or may not be one of the student’s initial faculty advisors. A second IPHG faculty member serving on the committee must represent the secondary core knowledge area. The core knowledge area(s) of each APC member is listed below. If an APC member has two core knowledge areas, the faculty member should agree to serve in either an (A) or (B) capacity on the Dissertation Supervisory Committee.

Academic Program Committee (APC) Members Core Knowledge Areas

<i>Name</i>	<i>Core Knowledge Area</i>	<i>Second Area (if any)</i>
Melissa A. Austin, Ph.D.	A	B
Deborah J. Bowen, Ph.D.	B	
Wylie Burke, M.D., Ph.D.	B	A
Debra Lochner Doyle, MS, CGC	B	A
David L. Eaton, Ph.D.	A	
Karen L. Edwards, Ph.D.	A	
Kelly Fryer-Edwards, Ph.D.	B	
S. Malia Fullerton, D.Phil	B	A
Patricia C. Kuszler, M.D., JD	B	A
Anna C. Mastroianni, JD, MPH	B	
Paul Steven Miller, JD	B	
Barbara Burns McGrath, Ph.D.	B	A
Scott Ramsey, M.D., Ph.D.	B	A
Timothy M. Rose, Ph.D.	A	
Kenneth E. Thummel, Ph.D.	A	
David Veenstra, PharmD, Ph.D.	B	A
Carolyn Watts, Ph.D.	B	

Other committee members are likely to be on the APC, but this is not required. At least three members (including the Chair and the Graduate School Representative) must be members of the Graduate Faculty with an endorsement to chair doctoral committees. A majority of the members must be members of the Graduate Faculty. Check the Graduate

Faculty Locator to see if a particular individual is Graduate Faculty.
(<http://www.grad.washington.edu/gradfac/>)

The student must select the Graduate School Representative (GSR) in consultation with committee members. The GSR is a voting member of your committee. The GSR cannot have an appointment within your committee chair's department(s), the Department of Epidemiology, or be a member of the APC. The GSR must be a Graduate Faculty member with an endorsement to chair doctoral committees, and must have no conflict of interest with you or your committee chair.

Details regarding the composition of a doctoral supervisory committee/roles and responsibilities are located in the following Graduate School websites:
<http://www.grad.washington.edu/Acad/gsmemos/gsmemo13.htm>
<http://www.grad.washington.edu/stsv/doccommroles.htm>

Once committee members have been selected, students will notify the Graduate Program Assistant (GPA) in the IPHG office by submitting the [request form](http://depts.washington.edu/phgen/phd/committee_form.doc) (http://depts.washington.edu/phgen/phd/committee_form.doc). After the GPA officially requests committee formation with the Graduate School, committee confirmation e-mails will be sent to all members of the committee, the student, the GPA, and The Graduate School.

In addition to the Dissertation Supervisory Committee, the student must designate a Doctoral Reading Committee consisting of at least three voting members of the Supervisory Committee. The faculty members of an IPHG student's Dissertation Supervisory Committee are typically the same as the student's IPHG Doctoral Reading Committee. However, students are permitted to have separate faculty members on each of these two committees if they so desire.

IV. Registering for PHG 800 Doctoral Dissertation Credits

A minimum of 27 units of PHG 800 are required for the doctoral degree. Students are eligible to register for PHG 800 once their supervisory committee has been officially formed with the Graduate School.

V. The General Examination

The General Examination is normally taken after the dissertation proposal has been completed, and before data collection for the dissertation research has begun. To be eligible to take the Oral General Examination, a student should have established his/her Supervisory Committee with the Graduate School and be registered for the term the Oral General is taken. In addition, the student must have earned a minimum of 60 credits (30 credits with prior Master's), including all the departmental course requirements. The

student should contact the IPHG Program Office (at ymera@u.washington.edu) to make sure s/he has completed all the Departmental and Graduate School requirements and to obtain the procedures for scheduling and taking the General Examination. Graduate School procedures for the General Examination are available at <http://www.grad.washington.edu/stsv/doctoralinfo.htm>.

The General Examination, administered by the Doctoral Supervisory Committee, deals primarily with the general topic of the student's dissertation. It is designed to:

- a. Measure the student's ability to analyze and synthesize information;
- b. Determine whether the student has sufficient breadth of knowledge of the topic of his/her dissertation, including a clear understanding of the biology of the public health issue under investigation; and
- c. Evaluate whether the student has adequate knowledge of recent advances and important concepts in relevant to the student's research project.

The General Examination consists of two parts--written and oral.

Written General Examination: The Written Examination is the first step of the General Examination. It may be taken after the Graduate School has approved the Committee, and the dissertation proposal has been presented to the Supervisory Committee. Students do not need to be registered to take the written exam. The written General Examination generally consists of question(s) from each committee member, tailored to the student's individual dissertation topic, with 1-2 weeks allowed to complete the written part. The exact number of questions and the time frame of the examination will be determined by the Dissertation Supervisory Committee. It is anticipated that portions of the written examination will be used in the student's dissertation. The written portion will be graded pass/fail and can be re-taken before the oral portion of the exam at the discretion of the Dissertation Supervisory Committee. The Committee members may require additional course work to remedy perceived deficiencies in any relevant area.

Oral General Examination: The oral portion of the General Examination includes a defense of the dissertation proposal and the content of the written examination, and is scheduled as soon as possible after the written exam is submitted. A student must be registered during the quarter he or she takes the Oral General Examination. If the exam occurs between quarters, the student must be registered for the upcoming quarter. A student who is registered for 1 credit will be charged for two (unless s/he is using the faculty/staff tuition exemption). The student must have completed all required coursework by the end of the quarter of the General Exam. All incompletes must be cleared and grades turned in on time. It is the student's responsibility to make sure that the faculty member has turned in the grade for incompletes that have been finished.

Results of the General Examination: After the General Examination, the Committee indicates on the warrant whether the student passed or failed. All Committee members who are present at the exam should sign the warrant. If a member is not in attendance, s/he should NOT sign the warrant. The absent members' names will still appear on the

warrant but the signature line should be left blank. The warrant should be returned to the Graduate Program Assistant at the IPHG office. If the student passes, candidacy is then awarded at the beginning of the next quarter. If the student fails, s/he has one more chance to pass. In case of failure, the Committee will make appropriate recommendations for further courses, reading or research to address the deficiencies. Students may not take the Final Examination in the same quarter as the General Examination.

VI. Arranging to take the General Exam

All committee members must agree for the student to proceed to the General Exam. The student must arrange with the committee members for at least four committee members, including the chair and the GSR to be present for the General Exam.

After the student completes a *Request for General Examination* form and submits the form to the IPHG office, the IPHG office will forward the request form to the Graduate School. The following are the steps and approximate time frame for this process:

Steps in arranging General Exam	Time before the General Exam
The student arranges with the committee members an acceptable date, time and location for the General Exam	Several months
The student completes a <i>Request for General Examination</i> form and obtains the signatures of the chair and all committee members.	At least one month before the date of the exam
The IPHG office forwards the request form to the Graduate School.	At least three weeks before the date of the exam

The student must be registered for the quarter the Oral General Exam is taken. If the exam occurs between quarters, the student must be registered for the following quarter. All incompletes must be cleared and grades submitted prior to the exam.

Unlike the MPH degree in Public Health Genetics, dissertation proposals do not need to be presented to the APC. However, the chair of the Supervisory Committee will inform the APC of the date of the oral exam, and APC members will be encouraged to attend.

VII. Advancement to candidacy

Upon successful completion of the General Examination, the Supervisory Committee will sign the General Exam warrant. After submission of the warrant to the Graduate School, the student is advanced to candidacy status.

If the student is unsuccessful in the first attempt at passing the General Exam, a second attempt will be permitted. If the student does not successfully complete this component of the training program after the second attempt, but has otherwise satisfactorily completed the educational requirements of the program, he or she will be awarded a terminal M.S. degree in PHG.

VIII. Roles and responsibilities of students and dissertation committee members

Student

The student decides on the topic and type of project he/she plans to do for the dissertation project. The student also selects his/her committee members, consults with his/her chairperson and other committee members on issues such as study design, data analysis, needed resources, and feasibility of the project. The student takes the lead in setting up and completing all aspects of the dissertation project.

Student's responsibilities include but are not necessarily limited to the following activities:

- Devise and adhere to a reasonable AND flexible timeline;
- Prepare for dissertation project through necessary coursework or research experience;
- Discuss potential ideas and interests with faculty/academic advisor (the student's academic advisor does not have to be the student's dissertation advisor, it is acceptable for students to work with a different faculty member on his/her dissertation);
- Explore leads and specific areas of interest to gain access to data and/or resources for a dissertation project;
- Organize committee and/or individual meetings as necessary throughout the project;
- Communicate regularly with dissertation committee members;
- Become familiar with the applicable human subjects requirements

Projects involving the use of human subjects (either directly or through records or other data such as specimens or autopsy materials) may require human subjects approval. The human subjects review and approval process ensures that the rights and welfare of research subjects are protected and ensures adherence to all policies regarding the use of human subjects.

Students should consult with their dissertation chairs as early as possible about the applicable human subjects procedures and any specific departmental requirements. Research involving one or more collaborating institutions may need to comply with those institutional requirements as well.

In developing timelines for dissertation completion and graduation, students must factor in the time necessary to receive approval from the UW Human Subjects Division and comply with any other departmental or collaborating institutions' requirements. Students should budget enough time for the entire review process, including time that may be required for resubmission and reconsideration. Students should recognize that the human subjects review committees meet on a particular schedule. The IPHG recommends planning for a minimum of two months for an Exempt application and up to four months for a Minimal Risk or Full application. Approval is granted only for one year and projects exceeding that time will require a timely submission for a renewal; renewal applications involve considerably less time for preparation and approval, but should be considered in timelines.

Students may NOT proceed with the human subjects research component of their dissertations until UW's Human Subjects Division provides an approval number. This includes approval for exempt, minimal risk or full review applications. Failure to obtain approval will jeopardize dissertation completion, graduation plans, and any publications derived from the dissertation.

Recommended Resources for Human Subjects Applications

UW Human Subjects Division, <http://depts.washington.edu/hsd/>

This website includes many helpful sources of information, including:

- An Introduction to the Human Subjects Review Process, prepared by the UW Human Subjects Division, <http://depts.washington.edu/hsd/broch.htm>

- Applications and instructions for completing the application can be found at: <http://depts.washington.edu/hsd/formin.htm>

This website also provides helpful links and instructions about specific issues that may arise in your research, including how to prepare a consent form and a checklist for preparing a consent form.

- Prepare drafts of the written dissertation document well in advance of pressing deadlines;

- Give committee members a reasonable amount of time to review drafts of the written dissertation document (usually 2-3 weeks; be aware of faculty's other commitments such as teaching and traveling);
- Obtain and adhere to the UW Graduate School dissertation guidelines (<http://www.grad.washington.edu/stsv/stylman/00stylman.htm>);
- Obtain the appropriate signatures as required by the Graduate School (<http://www.grad.washington.edu/>); and
- Submit dissertation to the Graduate School.

Chairperson

The dissertation committee chairperson advises the student with respect to how to conduct the dissertation project and complete the written document. The chairperson is responsible for verifying that the student is meeting the requirements of the Graduate School, School of Public Health and Community Medicine, and the Public Health Genetics program as well as any outside research requirements such as Human Subjects Division (HSD) approval. The chairperson provides guidance and advice with respect to study design, project scope, data analysis, and research methodologies. The Chairperson must be a member of the IPHG Academic Program Committee and must also be a member of the UW graduate faculty with endorsement to chair Ph.D. committees.

The chairperson's responsibilities include but are not necessarily limited to the following activities:

- Work with the student to design an acceptable dissertation project;
- Act as a liaison with outside agencies or researchers to help set up the project;
- Assist student in assessing writing skills and plans for improvement if needed;
- Help the student devise a reasonable timeline
- Attend committee meetings;
- Meet with the student on an individual basis as needed;
- Offer specific and general guidance related to the project;
- Serve as the primary advisor to the student throughout the project;
- Provide appropriate resources and references as needed;

- Review and edit drafts of the written dissertation document and return feedback to the student in a timely manner; and
- Communicate regularly with the student regarding availability.
- Review and approve student IRB application.

Other Committee Members

Dissertation committee members provide guidance, knowledge and expertise relevant to the dissertation topic. Committee members help the student develop and refine ideas related to the project and offer resources and references as needed.

Committee members' responsibilities include but are not necessarily limited to the following activities:

- Work with the student to design an acceptable dissertation project;
- Negotiate areas in which each committee member can provide specific input and guidance;
- Help the student devise a reasonable timeline;
- Attend committee meetings;
- Meet with the student on an individual basis as needed;
- Review and edit drafts of the written dissertation document and return feedback to the student in a timely manner; and
- Communicate regularly with the student regarding availability.

IX. Writing and publishing your dissertation

Students must submit graduate theses to the Graduate School in a specific format. See the Graduate School's Style and Policy Manual (<http://www.grad.washington.edu/stsv/stylman/00stylman.htm>) for specific details.

Students are strongly encouraged to prepare the dissertation for publication. The journal and authorship of the paper should be discussed with the dissertation committee in advance. Consult the journal's "Instructions to Authors" for specific requirements. If the student plans to leave the University of Washington after graduation, arrangements must be made for responding to reviewers' comments from the journal, revising and

resubmitting the manuscript, and communicating with the co-authors. Often, publication costs are involved, and this must be negotiated in advance as well.

X. Final Examination or Dissertation Defense

Upon completion of the dissertation research project and approval of the correctly formatted document by the Dissertation Supervisory Committee, the student schedules the Final Examination or oral defense of the dissertation.

The Final Examination consists of a public presentation and an oral defense of the student's dissertation before the Dissertation Supervisory Committee. The student will then incorporate into the dissertation appropriate changes recommended by the Supervisory Committee before final award of the degree. The student must successfully defend his/her research before the Ph.D. can be granted and may repeat his/her defense if the initial defense is unsatisfactory.

All committee members must agree for the student to proceed to the Final Exam. The student must arrange with the committee members for at least four committee members, including the chair and the GSR to be present for the Final Exam.

After the student completes a *Request for Final Examination* form and submits the form to the IPHG office, the IPHG office will forward the request form to the Graduate School. The following are the steps and approximate time frame for this process:

Steps	Time before Final Exam
The student arranges with the committee members an acceptable date, time and location for the Final Exam	Several months
The student completes a <i>Request for Final Examination</i> form and obtains the signatures of the chair and all committee members.	At least one month before the date of the exam
The IPHG office forwards the request form to the Graduate School.	At least three weeks before the date of the exam