

University of Washington
Institute for Public Health Genetics

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Ph.D. in Public Health Genetics Guidelines

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(http://depts.washington.edu/phgen/pdf/PhD_Guidelines_Part_1.pdf)

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Ph.D. in Public Health Genetics

Part 2 of 2: Dissertation Guidelines, General Examination and Final Examination

III. Choosing a Dissertation Topic and Selective Courses

After passing the Preliminary Examination, 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. Please refer to the following “Ph.D. Sample Progress Timeline” link for information on expected time to complete each stage of the dissertation research project. http://depts.washington.edu/phgen/pdf/PhD_Sample_Progress_Timeline.pdf

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, and are described in detail in Part 1 (Section II.C). http://depts.washington.edu/phgen/pdf/PhD_Guidelines_Part 1.pdf

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 student should work closely with the committee to determine the most appropriate way to address these two core knowledge areas.

As described in **Part I** of these guidelines, students will be expected to take at least 9 additional units of selective courses related to his/her dissertation project. A list of recommended courses, available in a variety of departments at the UW, is listed in **Tables 3 A and 3B** of that section,

but the course of study from this point on will be individualized. The student needs to work with his/his dissertation supervisory committee to identify the 9 units of selectives that will be the most useful in completing his/her dissertation project. That is, the final selection of electives must be approved by the student’s Dissertation Supervisory Committee. Ph.D. students may use the S/NS grading mechanism for selective courses.

IV. Forming a Dissertation Supervisory 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 and the committee members including the GSR before registering for dissertation credits. The chair must be a member of the IPHG Academic Program Committee (APC) or an IPHG Auxiliary Faculty member 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. If the chair of the dissertation committee is an APC member, this second committee member can be an IPHG Auxiliary Faculty member. However, if the Chair of the dissertation committee is an Auxiliary Faculty member, the second committee member must be a member of the APC.

The core knowledge area(s) of each APC member and each IPHG Auxiliary Faculty member is listed below. If an IPHG faculty 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

Name	Core Knowledge Area	Second Area (if any)
Wylie Burke, M.D., Ph.D.	B	A
Debra Lochner Doyle, MS, CGC	B	A
David L. Eaton, Ph.D.	A	
Kelly Fryer-Edwards, Ph.D.	B	
S. Malia Fullerton, D.Phil	B	A
Patricia C. Kuszler, M.D., JD	B	A
Yvonne Lin, Ph.D.	A	
Anna C. Mastroianni, JD, MPH	B	
Barbara Burns McGrath, Ph.D.	B	A
Kenneth E. Thummel, Ph.D.	A	
Bruce Weir, Ph.D.	A	

Auxiliary Faculty and Core Knowledge Areas

Name	Core Knowledge Area (Secondary Area)
Erika Blacksher, Ph.D.	B
Deborah J. Bowen, Ph.D.	B
Christopher Carlson, Ph.D.	A
Gail Jarvik, Ph.D.	A
Gael Kurath, Ph.D.	A
Jeannine McCune, Ph.D.	A
Ulrike Peters, Ph.D., MPH	A
Scott Ramsey, M.D., Ph.D.	B (A)
Alexander Reiner, Ph.D.	A
Steve Schwartz, Ph.D., MPH	A
Helen Starks, Ph.D., MPH	B
Grace John Stewart, MD, Ph.D., MPH	A
Holly Tabor, Ph.D.	B
Timothy Thornton, Ph.D.	A
Debby Tsuang, Ph.D.	B
Cornelia (Neli) Ulrich, Ph.D., M.S.	A
David Veenstra, PharmD, Ph.D.	B (A)
Benjamin Wilfond, MD, Ph.D.	A

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), or be a member of the APC. However, exceptions can be made with appropriate justification, by petition to the Dean of the Graduate School (See Graduate School Memo 13). 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/policies/doctoral/committee-roles.shtml>
<http://www.grad.washington.edu/policies/memoranda/memo13.shtml>

(Also see Section VII below for additional details)

Once committee members have been selected, students will notify the Graduate Program Assistant (GPA) in the IPHG office by submitting the “Request to Establish a PhD Dissertation Committee” form (http://depts.washington.edu/phgen/pdf/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.

V. 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.

VI. The General Examination

A. Overview

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 depth and breadth of knowledge in the general areas of the topic of his/her dissertation to complete the project; and
- c) Evaluate whether the student has adequate knowledge of recent advances and important concepts relevant to the student’s research project.

At the time of the exam the student must have earned a minimum of 60 credits (30 of which must have been taken at the University of Washington), including all the departmental course requirements. The student should contact the IPHG Program Office to confirm the procedures for scheduling and taking the General Examination.

The General Examination consists of two parts--written and oral. It is highly recommended that the student and his/her Dissertation Supervisory Committee discuss the format of both the written and oral components of the General Examination in detail to insure a mutual understanding of the process. This would include the timeline for the written and oral components of the examination, the steps the student should take before the exam, the length and content of the dissertation proposal, the format of the oral exam.

B. 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 committee members, 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. 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 identified in the written portion of the exam.

C. Oral General Examination:

The oral portion of the General Examination includes a presentation of the content of the written examination, and is scheduled after the written exam is submitted. A student must be registered during the quarter he or she takes the Oral General Examination, and must schedule his/her exam with the Graduate School online at:

<http://www.grad.washington.edu/mygrad/student.htm>.

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).

Graduate School procedures for the oral General Examination are available at

<http://www.grad.washington.edu/policies/doctoral/general-exam.shtml>.

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 scheduling the exam online, the student can pick up the warrant from the IPHG office to take to the oral exam.

D. Results of the General Examination and Advancement to Candidacy

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, advancement to candidacy is then awarded at the beginning of the next quarter. Note that students may not take the Final Examination in the same quarter as the General Examination.

If the student fails, s/he has one more opportunity to pass. The Dissertation Supervisory Committee will make appropriate recommendations for further courses, reading or research to

address the deficiencies. Students who fail the General Examination twice have the option of pursuing an M.S. degree in Public Health Genetics. Students also have the option of petitioning the APC to pursue the M.S. in PHG degree after failing the General Examination one time. The M.S. in PHG degree requires students to complete a capstone project approved by his/her Dissertation Supervisory Committee (See Section X below).

VII. Roles and Responsibilities of Students and Dissertation Supervisory Committee Members and Human Subjects

A. 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;
http://depts.washington.edu/phgen/pdf/PhD_Sample_Progress_Timeline.pdf
- 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 and implement them as needed for the dissertation project (See Section D below).

B. Dissertation Committee Chair

The dissertation committee chair 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 either be a member of the IPHG Academic Program Committee or must be an IPHG Auxiliary Faculty member, 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;
- Communicate regularly with the student regarding availability. and
- Review and approve student IRB application.

C. 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.

D. Human Subjects

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://www.washington.edu/research/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://www.washington.edu/research/hsd/hsdman3.html>
- Applications and instructions for completing the application can be found at:
http://www.washington.edu/research/hsd/forms_paper.php

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.

VIII. Writing and publishing your dissertation

Students must submit graduate theses to the Graduate School online. See the Graduate School's instructions for submitting an Electronic Dissertation: (<http://www.grad.washington.edu/students/etd/info.shtml>) 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.

IX. 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. It is highly recommended that the student and his/her Dissertation Supervisory Committee discuss the format of the Final Examination in detail to insure a mutual understanding of the process. Since the design varies from exam to

exam, it is important that the student relies on the committee members' input regarding the specific details of his/her exam.

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.

Graduate School policies for the final Examination are available at <http://www.grad.washington.edu/policies/doctoral/final-exam.shtml>. The student schedules the exam online at <http://www.grad.washington.edu/mygrad/htm>, picks up the warrant from the GPA to take to the exam, and then returns the signed warrant to the IPHG Office. Your degree request will then be approved online and the Graduate School can proceed to award your degree.

X. M.S. Requirements

As described above, students will have two opportunities to satisfactorily complete the Ph.D. Preliminary Examination as well as two opportunities to satisfactorily complete the Ph.D. General Examination. In the event that a student does not pass an examination on the second attempt, he/she will have the opportunity to pursue the terminal Master of Science degree in Public Health Genetics. Students will also have the option of petitioning the APC to pursue the M.S. in PHG degree after failing the Preliminary Exam one time, as well as the option of petitioning their Supervisory Committee to pursue the M.S. in PHG degree after failing the General Exam one time.

Awarding of this degree will be contingent on completing a capstone project reflecting the interdisciplinary training and directed research in the Public Health Genetics Program. This capstone project could take the form of a traditional master's thesis, a literature review and position paper, an education video, or other forms, as appropriate to the student's course of study. For students failing the General Exam, the capstone project must be approved by their Dissertation Supervisory Committee.