



Graduate Student Handbook

PATHOBIOLOGY

2023-2024

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University of Washington

INTRODUCTION

The faculty and staff would like to take this opportunity to welcome all incoming students to the Interdisciplinary Pathobiology Graduate Program. We hope you are looking forward to a year of exciting opportunities to learn and experience the challenges associated with research. This Handbook has been made available to assist you in answering some of the basic questions regarding the graduate program and administrative services. It is not intended as a substitute for official University publications such as the *University of Washington Handbook* and *Graduate School Memoranda*.

As a discipline, Pathobiology ties together the fundamental concepts of biology, medicine, and public health, particularly as applied to global health issues. The program applies a multidisciplinary approach as well as the latest research technologies to the study of global health problems such as viral, bacterial, and parasitic diseases, as well as other conditions such as cancer. Investigating the mechanisms underlying multifactorial diseases emphasizes the preventive as well as the curative, and a broader view of disease etiology.

The Pathobiology Graduate Program offers research and training programs leading to the Doctor of Philosophy degree. Coursework includes core courses in Pathobiology, with additional courses required in epidemiology, biostatistics, and immunology. Students may also choose electives from other basic medical sciences, such as microbiology, biochemistry, pathology, and genetics. The Program places equal emphasis on research and training for both graduate students and postdoctoral fellows.

The graduate program is geographically dispersed. The business office is located on the 7th Floor of the Hans Rosling Center for Population Health, Room 761B. Faculty offices are at a number of locations around the Seattle area and the UW campus. Faculty are located in the UW Health Sciences Building, Harborview Medical Center (Research and Training Building and Ninth and Jefferson Building), UW at South Lake Union, Seattle Children's Research Institute, Fred Hutchinson Cancer Center, PAI Life Sciences, Institute for Systems Biology, and Western Fisheries Research Center.

The administrative home of the Interdisciplinary Program in Pathobiology is the Department of Global Health. The Interim Chair of the Department of Global Health is Dr. Carey Farquhar. The Program is guided by a Steering committee, chaired by Dr. Jennifer Lund, director of the graduate program. Other members include Drs. Rhea Coler, Michael Gale, and Tom Hawn. Dr. Farquhar serves *ex officio* on the committee, and Ernie Lefler, the Pathobiology Program Manager, staffs the committee.

Please read and use this book!

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1.0 Course Work

1.1 The PhD Program

Time to completion: ~ 5 years

TOTAL CREDIT REQUIREMENT: 90 CREDITS

MINIMUM: 18 GRADED CREDITS

The Pathobiology Graduate Program has established learning objectives for its doctoral program. Upon completion of the program, the student will be able to:

- Explain and apply a fundamental understanding of basic cellular and molecular processes and techniques important in the application of basic biomedical research to diseases of global public health interest. Specifically, this includes the ability to critically analyze the paradigms for control, prevention, and treatment of diseases of global health importance, an understanding of the epidemiology and processes of diseases of national and international importance, an understanding of how biomedical research can approach such diseases, and basic methodologies used in this type of research, including relevant areas of immunology, molecular biology, epidemiology, and biostatistics. Students are also expected to develop familiarity with the major classes of pathogens.
- Conduct independent research leading to the expansion of knowledge of Pathobiology. This includes having the skills to approach an unfamiliar experimental system, and to identify and explore important questions concerning pathogenesis and infection.
- Collect, analyze, interpret, and use data for solving problems in Pathobiology.
- Utilize advanced research approaches and expertise in the area of their research concentration.
- Communicate research findings to scientific audiences through publications and oral presentations.

The course of study outlined below will fulfill University of Washington regulations. In this handbook, those requirements will not be covered exhaustively. Students should consult the Graduate School website and other memoranda concerning those requirements. Ultimately, it is the student's responsibility to ensure that they meet the UW and program requirements and proceeds through the program in a timely fashion.

| REQUIRED COURSES | | CREDITS | GRADED OR C/NC |
|------------------------|--|----------|----------------|
| PABIO 550 | Diseases and Issues in Global Health | 2 | Graded |
| PABIO 551 | Biochemistry and Genetics of Pathogens and Their Hosts | 4 | Graded |
| PABIO 552 | Cell Biology of Human Pathogens and Disease | 4 | Graded |
| PABIO 553 | Survival Skills for Scientific Research | 2 | C/NC |
| PABIO 580 ¹ | Pathobiology Seminar | 1 | C/NC |
| | | | |
| PABIO 581 ² | Current Literature in Pathobiology | 1 | C/NC |
| PABIO 582 ² | Critical Thinking and Research Design in Pathobiology | 1.5 | C/NC |
| PABIO 591 ² | Pathobiology Minicourse Series | 1 | C/NC |
| PABIO 598 | Didactic Pathobiology (teaching) | 2-3 | C/NC |
| PABIO 500 | Rotation | 3 | C/NC |
| PABIO 600 | Research | Variable | C/NC |
| PABIO 800 | Doctoral Dissertation | Variable | C/NC |
| EPI 511 ³ | Introduction to Epidemiology | 4 | Graded |
| EPI 527 ³ | Vaccines | 3 | Graded |
| IMMUN 441 ⁴ | Introduction to Immunology | 4 | Graded |
| UCONJ 510 ⁵ | Introductory Laboratory Based Biostatistics | 2 | Graded |
| HSERV 579 ⁶ | Structural Racism and Public Health | 1 | C/NC |

Notes on Courses for Degree Progress

¹ Students are required to attend Seminar (PABIO 580) every Winter Quarter, and to attend the presentations of dissertation research in the Final Exam of students completing the Pathobiology PhD program. Students in the writing stage of their dissertation are exempted from PABIO 580 for that quarter.

² Students are required to enroll in Lit Review (PABIO 581) every Autumn Quarter for the first three years, Critical Thinking (PABIO 582) every Spring Quarter for the first two years, and 3 different minicourses (PABIO 591; offered every Spring Quarter).

³ Pathobiology students are required to take either EPI 511 or EPI 527 to fulfill the Pathobiology PhD program's epidemiology requirement (or obtain permission from the Pathobiology Program Director to get credit for an epidemiology course elsewhere). EPI 511 is a 4-credit graduate level introductory course that fulfills this requirement. Alternatively, EPI 527 (Vaccine Epidemiology) is a 3-credit graduate level option that focusses on vaccines and can also be used to fulfill this option. However, students who opt to take EPI 527 should be aware that they may need to do remedial introductory work on their own to succeed in this class and that EPI 511 may be a better choice for students who have not gained familiarity with basic concepts in epidemiology in other settings.

⁴ Pathobiology students are required to take IMMUN 441 (Introduction to Immunology) even if they have a strong immunology background. This course is very challenging, broad, and well taught. It is unlikely that even a student with a strong immunology background from another school will find this course too basic. If a student has a very good reason for not taking this course (e.g. they actually took this identical course), they should talk to the Pathobiology Program Director about taking IMMUN 532 (Advanced Immunology) instead. We do not encourage IMMUN 532 (Advanced Immunology) as a routine substitute for IMMUN 441 because of feedback from our students who found that IMMUN 532 typically has a very narrow focus and assumes that a student has already taken IMMUN 537 (Immunological Methods). Note that taking IMMUN 537 along with PABIO 551, PABIO 550, and PABIO 581 will make Autumn Quarter of first year very challenging, but all of the courses provide a strong foundation that helps students succeed with subsequent rotations and courses.

⁵ Biostatistics Competency: Given the importance of understanding biostatistics, the Pathobiology Program requires students to have formal coursework in biostatistics. To allow for maximum flexibility, this requirement can be fulfilled in a number of ways. Doctoral students must complete one of the items below by the end of the third year to demonstrate competency.

1. UCONJ 510: Introductory Laboratory Based Biostatistics (2 credits, offered in Summer Quarter)*
2. Either BOST 508: Biostatistical Reasoning in the Health Sciences (4 credits) or BOST 511: Medical Biometry (4 credits) or BOST 517: Applied Biostatistics (4 credits)
3. Previous coursework in Biostatistics or Statistics – must be approved by Program Director
4. Alternate approach to be discussed with the Program Director

*If taking UCONJ 510 (2 credits) in summer, students will not register for additional coursework. Each summer, students only register for 2 credits total, which equates to full-time enrollment.

⁶ This course is offered AUT/WIN/SPR quarters – recommended to be taken in the First Year of Program. It is best for the First Year Students to **take this course during their Spring Quarter**; however, it can be taken in Winter Quarter if it works with your schedule.

During the Academic Year (AUT/WIN/SPR), you will register for a *minimum* of 10 credits to qualify as a full-time student. Full-time enrollment is required each quarter so that you qualify for your tuition waivers, salary and benefits. For summer quarters, you *only* register for 2 credits of coursework to qualify as a full-time student.

PhD Electives

You must take at least two electives of your choice. Recommended options for elective courses are listed on page 10 of this handbook. However you are not limited to these listed options. Note that PABIO 536 (Bioinformatics) is strongly recommended as an elective for all students. Please consult with your advisor and your committee regarding your selection and schedule of electives. Your Doctoral Supervisory Committee may advise you to take additional electives. If the latter occurs, this should be documented in your file in the program office. Some electives are more suitable for students with advanced backgrounds. Students should consult a current catalog to verify course offerings. Please see table below for a summary of **Pathobiology PhD Program Coursework**:

| FIRST YEAR | | | |
|---|--|---|--|
| Fall Quarter | Winter Quarter | Spring Quarter | Summer Quarter |
| PABIO 500 (Lab Rotation): Introduction to Pathobiology Research (required, 3 cr minimum) | PABIO 500 (Lab Rotation): Introduction to Pathobiology Research (required, 3 cr minimum) | PABIO 500 (Lab Rotation): Introduction to Pathobiology Research (required, 3 cr minimum) | UCONJ 510: Introductory Lab Based Biostatistics (required, 2 cr) |
| PABIO 550: Disease and Issues in Global Health (core course, 2 cr) | PABIO 552: Cell Biology of Human Pathogens and Disease (core course, 4 cr) | PABIO 536: Bioinformatics and Gene Sequence Analysis (recommended, 3 cr) | |
| PABIO 551: Biochemistry and Genetics of Pathogens and their Hosts (core course, 4 cr) | PABIO 553: Survival Skills for Scientific Research (core course, 2 cr) | PABIO 582: Critical Thinking and Research Design (required, take in years 1-2, 1.5 cr) | |
| PABIO 581: Current Literature in Pathobiology – (required, take each year for years 1-3, 1 cr) | PABIO 580: Pathobiology Seminar – (required, take until writing your dissertation, 1 cr) | PABIO 591: Minicourse, topics vary (required, take 3 different 1 cr minicourse; 2 are offered every Spring Qtr) | |
| IMMUN 441*: Introduction to Immunology (required, 4 cr) | | HSERV 579: Structural Racism and Public Health (required, 1 cr) | |
| *or IMMUN 532 (Advanced Immunology, 4 cr); seek permission with instructor before taking | | | |
| SECOND YEAR | | | |
| Fall Quarter | Winter Quarter | Spring Quarter | Summer Quarter |
| PABIO 600: Independent Study or Research (required, variable cr) | PABIO 600: Independent Study or Research (required, variable cr) | PABIO 600: Independent Study or Research (required, variable cr) | PABIO 600: Independent Study or Research (required, 2 cr) |
| PABIO 581: Current Literature in Pathobiology – (required, take each year for years 1-3, 1 cr) | PABIO 580: Pathobiology Seminar – (required, take until writing your dissertation, 1 cr) | PABIO 582: Critical Thinking and Research Design – (required, take in years 1-2, 1.5 cr) | |
| EPI 511: Principles of Epidemiology (4 cr), or EPI 527: Vaccines (3 cr) [take one of these required courses] | | PABIO 591: Minicourse, topics vary (required, take 3 different 1 cr minicourse; 2 are offered every Spring Qtr) | |
| THIRD YEAR and BEYOND | | | |
| Register for any other required coursework. Register for either PABIO 600 (Independent Study or Research), or after passing General Exam , PABIO 800 (Doctoral Dissertation) to a <i>minimum</i> of 10 credits total every quarter; except summer quarters, register for a <i>maximum</i> of 2 credits. Winter quarters, continue to register for PABIO 580, unless in the writing stage of your dissertation. General Exam with your PhD committee should be taken before the end of the third year. | | | |

Additional Pathobiology Program Coursework notes:

- Two electives are required (PABIO 536 can count towards this requirement). These can be any courses, not necessarily what is on our elective list on page 10 of this handbook.
- The courses outlined above along with Research credits (PABIO 500, PABIO 600, AND PABIO 800) will give you the necessary credits needed to graduate (90 total and 18 graded).

Didactic Teaching Requirement

Teaching experience is an essential part of the education for a doctoral degree. Therefore, it is a requirement for doctoral Pathobiology students to obtain training in teaching at the University level through enrollment and participation in one quarter of PABIO 598: Didactic Pathobiology.

This type of teaching experience is a learning opportunity for university credit and not a paid Teaching Assistantship. It does not have a service expectancy, and therefore does not receive DGH funding. The didactic teaching requirement is normally fulfilled in the third year of your program, however, it should be completed by the end of your fourth year.

Note that Teaching Assistantships (offered by other departments) cannot substitute for the Pathobiology Didactic Teaching requirement.

Didactic Pathobiology Learning Objectives –

At the completion of Didactic Pathobiology, students are expected to:

1. Understand and design key elements of a college or graduate level course
2. Prepare and present lectures and active learning sessions
3. Design appropriate evaluations to measure student learning

To ensure fairness in assignments, the Program Manager will distribute an expectations form prepared by the instructor(s) of each course eligible for didactic training and request a list of the top two to three choices from each student at the end of their second year of classes. The Program Director will then allocate didactic teaching assignments for the next year.

The courses that offer opportunities for didactic training include:

- PABIO 551: Biochemistry and Genetics of Pathogens and Their Hosts
- PABIO 552: Cell Biology of Human Pathogens and Disease
- PABIO 536: Bioinformatics and Gene Sequence Analysis
- G H 210: Confronting Global Diseases – Introductory Biologic Principles and Context

1.2 Electives (for PhD)

You must take at least two electives of your choice. Recommended options for elective courses is listed below, however you are not limited to the listed options. Note that PABIO 536 (Bioinformatics) is strongly recommended as an elective for all students. Please consult with your advisor and your committee regarding your selection and schedule of electives. Your Doctoral Supervisory Committee may advise you to take additional electives. If the latter occurs, this should be documented in your file in the program office. Some electives are more suitable for students with advanced backgrounds. Students should consult the University of Washington current online course catalog/time schedule to verify course offerings.

List of recommended electives:

- IMMUN 532: Advanced Immunology
- IMMUN 537: Immunological Methods
- IMMUN 538: Immunological Based Diseases and Treatments
- EPI 520: Epidemiology of Infectious Diseases
- EPI 524: Epidemiology of Cancer
- EPI 529: Emerging Infections of International Public Health Importance
- EPI 530: AIDS: A Multidisciplinary Approach
- EPI 532: Epidemiology of Infectious Diseases of Third World Importance
- MICROM 444: Medical Mycology and Parasitology
- MICROM 540: Graduate Virology
- MICROM 553: Molecular Mechanisms of Bacterial Pathogenesis
- MICROM 555: Advanced Clinical Microbiology
- CONJ 531-549, 557: Select Modules from the Molecular Conjoint Series (varies)
- GENOME 576: Genetic and Genomic Analysis of Bacteria
- MCB 532: Human Pathogenic Viruses

1.3 MSTP Coursework

The curriculum for Pathobiology PhD Students in the MSTP Program is identical to the PhD program described above except that:

1. The rotation requirements have been waived since these are fulfilled during the first years in Medical School.
2. The Didactic Teaching requirement may be waived if they have served as a TA during Medical School prior to joining the Pathobiology Program. In that case, they are exempted from taking PABIO 598.
3. Immunology 441 or 522 are recommended but not required.

1.4 The MS Program

Time to completion: 2 years

TOTAL CREDIT REQUIREMENT: 60 CREDITS

MINIMUM: 18 GRADED CREDITS

Policy for conversion to the MS degree and admittance into the PhD program

PhD students may, if they wish, switch to the MS program. In so doing, they in effect resign from the PhD program. If they later wish to continue to a PhD, they must re-apply for that program. Students wishing to pursue this option should consult with the Program Director.

The Pathobiology Graduate Program is not currently accepting students directly into the MS Program. However, the MS Program remains an option under specific circumstances, such as failure to pass the General Exam or changes to academic goals.

The following learning objectives are the basis for the Master's degree in Pathobiology. The student will be able to:

- Discuss and apply fundamental aspects of basic biomedical research to diseases of public health interest.
- Collect, analyze, interpret, and use data for solving problems in Pathobiology.
- Demonstrate competency in basic research skills and understanding of the scientific method.
- Communicate research findings through oral and written presentations.

The course of study outlined below will fulfill University of Washington regulations. In this handbook, those requirements will not be covered exhaustively. Students should consult the Graduate School website and other memoranda concerning those requirements. Ultimately, it is the student's responsibility to ensure that they meet the UW and program requirements and proceeds through the program in a timely fashion.

| REQUIRED COURSES | | CREDITS | GRADED OR C/NC |
|------------------------|---|----------|----------------|
| PABIO 550 | Diseases and Issues in Global Health | 2 | Graded |
| PABIO 551 | Biochemistry and Genetics of Pathogens and Their Hosts | 4 | Graded |
| PABIO 552 | Cell Biology of Human Pathogens, Disease, and Public Health | 4 | Graded |
| PABIO 553 | Survival Skills for Scientific Research | 2 | C/NC |
| PABIO 580 ¹ | Pathobiology Seminar | 1 | C/NC |
| | | | |
| PABIO 581 ² | Current Literature in Pathobiology | 1 | C/NC |
| PABIO 582 ² | Critical Thinking and Research Design in Pathobiology | 1.5 | C/NC |
| PABIO 591 ² | Pathobiology Minicourse Series | 1 | C/NC |
| PABIO 500 | Rotation | 3 | C/NC |
| PABIO 600 | Research | Variable | C/NC |
| PABIO 700 | Master's Thesis | Variable | C/NC |
| EPI 511 ³ | Introduction to Epidemiology | 4 | Graded |
| EPI 527 ³ | Vaccines | 3 | Graded |
| IMMUN 441 ⁴ | Introduction to Immunology | 3 | Graded |
| HSERV 579 ⁵ | Structural Racism and Public Health | 1 | C/NC |

MS Electives

Additional courses in Pathobiology or the biomedical sciences may be taken to fulfill the graded course requirement, to encompass the interests of the student, or to fulfill any additional requirements set forth by the student's committee.

Notes for Degree Progress

¹ MS students are required to attend Seminar (PABIO 580) every Winter Quarter and to attend the presentations of dissertation research in the Final Exam of students completing the Pathobiology doctoral program.

² MS students are required to enroll in Lit Review (PABIO 581) every Autumn Quarter, Critical Thinking (PABIO 582) every Spring Quarter, and a minicourse (PABIO 591) every Spring Quarter in each of the first two years in the MS program. Three credits each of Seminar and Lit Review (PABIO 581) may each be counted towards your degree. If a master's student decides to continue studies in the Pathobiology PhD program, additional years of PABIO 581/582/591 will be required commiserate with the PhD requirements.

³ Pathobiology students are required to take either EPI 511 or EPI 527 to fulfill the Pathobiology MS program's epidemiology requirement (or obtain permission from the Pathobiology Program Director to get credit for an epidemiology course elsewhere). EPI 511 is a 4-credit graduate level introductory course that fulfills this requirement. Alternatively, EPI 527 (Vaccine Epidemiology) is a 3-credit graduate level option that focusses on vaccines and can also be used to fulfill this option. However, students who opt to take EPI 527 should be aware that they may need to do remedial introductory work on their own to succeed in this class and that EPI 511 may be a better choice for students who have not gained familiarity with basic concepts in epidemiology in other settings.

⁴ Pathobiology students are required to take IMMUN 441 (Introduction to Immunology) even if they have a strong immunology background. This course is very challenging, broad, and well taught. It is unlikely that even a student with a strong immunology background from another school will find this course too basic. If a student has a very good reason for not taking this course (e.g. they actually took this identical course), they should talk to the Pathobiology Program Director about taking IMMUN 532 (Advanced Immunology) instead. We do not encourage IMMUN 532 (Advanced Immunology) as a routine substitute for IMMUN 441 because of feedback from our students who found that IMMUN 532 typically has a very narrow focus and assumes that a student has already taken IMMUN 537 (Immunological Methods). Note that taking IMMUN 537 along with PABIO 551, PABIO 550, and PABIO 581 will make Autumn Quarter of first year very challenging, but all of the courses provide a strong foundation that helps students succeed with subsequent rotations and courses

⁵ This course is offered AUT/WIN/SPR quarters – recommended to be taken in the First Year of Program. It is best for the First Year Students to take this course during their Spring Quarter; however, it can be taken in Winter Quarter if it works with your schedule.

Schedule for Coursework

To progress in a timely manner, students should anticipate taking 1-2 graded courses a quarter, plus Seminar, Lit Review, and research (PABIO 600) or thesis (PABIO 700) credits for a total of 10 credits per quarter. Students are required to complete 9 credits of PABIO 700 for the MS degree. Students desiring to enroll in more than 10 credits per quarter need approval from the Pathobiology Program Director. All formal coursework should be completed by the end of the second year. Please consult with your advisor or a member of the Graduate Student Advisory Committee (GSAC) regarding your specific program. Individual students are likely to need different sets of electives and may want to take required courses at different times.

For offerings of other Pathobiology courses, see the listing under the PhD program. Please check with your GSAC advisor or a member of the Curriculum Committee, as well as the online current catalog/time schedule, to verify course offerings.

MS Advisory Committees

Your progress in the MS program will be followed by several individuals. Among these are your advisor, members of the Graduate Student Advisory Committee (GSAC), and your MS Advisory Committee. In the event that you perceive you are having problems with your academic or research program, please discuss this with a faculty member on one of these committees.

The GSAC will monitor your progress until your Advisor is identified. Once you choose an advisor, you must submit the **Advisor Confirmation Form**, found [here](#), to the Program Manager to be placed in your permanent file. Please bring questions concerning course offerings and curriculum to them. One of the faculty members will be assigned as your GSAC advisor.

The MS Advisory Committee consists of three members including your research advisor. At least one of the two other members of the committee should be from the Pathobiology Graduate Program. The MS Advisory Committee meets every six months. For each committee meeting, the student should prepare a brief oral presentation documenting their progress. The committee will complete a brief report regarding your progress after each meeting on the **Report of Graduate Student Committee Meeting**, found [here](#). The student is responsible for bringing this form to the committee meeting. The completed form should be sent as email attachment to the Program Manager.

The MS Thesis

The thesis must be provided to the MS Advisory Committee two weeks prior to the oral presentation. Corrections should be made following their review before submission of the document to the Graduate School.

The thesis is to be an original study of such quality as to be accepted by a reputable journal. The requirement for a thesis of publishable quality implies a substantial research commitment by the student. It is expected that the thesis work will be promptly submitted for publication, if that has not been done already.

The thesis should be written in the format suggested by the Graduate School. The format is specified at: <https://grad.uw.edu/for-students-and-post-docs/thesisdissertation/>.

MS Oral Presentation and Defense

All students are required to give a formal seminar prior to the completion of the MS program. The research presentation given during the Graduate Research Symposium is not a substitute. The actual thesis presentation will consist of a concise verbal summary of the background, results, conclusions, and significance of the thesis project. Following this presentation, each committee member will question the student on any aspect of his or her research endeavors. The Oral Presentation and Defense is advertised campus wide and other Pathobiology students are encouraged to attend.

2.0 Pathobiology Rotation Program

2.1 Rotation Program Guidelines

First year students in the PhD program participate in the laboratory rotation program. This program is designed to provide research experience in various projects and experimental systems that are being investigated in the program. It will give students the opportunity to interact with faculty, students, postdoctoral scientists, and staff in different research groups and facilities, and assist students in deciding in which laboratory they wish to conduct their dissertation research. Students rotate through three labs, for the first three quarters in the program.

Laboratory assignments will be the responsibility of the Pathobiology Program Director, Dr. Jennifer Lund, in consultation with first year advisors. Prior to the start of Autumn Quarter, students will be provided with information concerning laboratories who will be accepting rotation students. **Students are strongly encouraged to contact faculty members with whom they are interested in rotating** in Autumn (and other quarters, if desired) to discuss research opportunities and solidify a rotation for Autumn Quarter. Rotation plans for Winter and Spring Quarters should be solidified no later than the end of Autumn and Winter Quarters, respectively. If any difficulties arise in identifying a laboratory rotation for any of the quarters, the Program Director will assign a laboratory rotation. Assignment of laboratory rotations is based on 1) the preferences of the student and 2) the ability of labs to support the student's research (financial, space, and mentor time considerations) both in the short term and if possible in the longer term. The students will work on experiments related to the goals of funded projects within the labs. The Program Director will attempt to match students and labs according to interest but may need to make rotation assignments other than those listed by the student for reasons such as space, funding, and reasonably equitable distribution of students. It is strongly encouraged that students do rotations at more than one site. Students will not be allowed to remain in one lab for more than one quarter or to do more than three rotations. All rotations must be approved by the Program Director by submitting the **Rotation Confirmation Form**, found [here](#), to the Pathobiology Program Manager.

Students will enroll in PABIO 500 for a minimum of three credits for each rotation and register with the faculty add code supplied by the Program Manager. This faculty member will be responsible for submitting a credit/no credit grade for the student. In general, students are expected to work approximately 20 hours per week on their project and are expected to attend lab meetings. To receive credit for the rotation, all students are expected to: 1) give a presentation to the host lab on their work, 2) write a written report on their rotation [1-2 pages single spaced], and 3) receive a written evaluation from the professor using the **Student Rotation Evaluation** form, found [here](#). A copy of the completed **Student Rotation Evaluation** form and the student written report will be provided to the Program Manager as email attachments, to be placed in the student's file.

Students are expected to complete all three rotations. However, rotations may be waived at the discretion of the Program Director if the following conditions are met: 1) the student has rotated with a faculty member who would agree to be their mentor, and 2) the Program Director deems additional rotations unlikely to provide an additional option for permanent mentor selection.

Students are expected to identify a faculty mentor who agrees to provide funding support for their doctoral research no later than the tenth week of the third quarter (Spring), or by the date specified by the Pathobiology Program Manager, by submitting the **Advisor Confirmation Form**, found [here](#). In the fourth quarter (Summer), if the student enters a laboratory in which they have not rotated, funding is provided by the faculty mentor and formalization of continuous support for the Student's doctoral research is contingent on sufficient research progress during this quarter. The inability to identify a laboratory that accepts the Student for their dissertation research by the end of the fourth quarter will lead to dismissal from the Interdisciplinary Doctoral Program in Pathobiology (see Academic Progress, section 4.7).

On rare occasions, students may petition to be exempted from the rotation program. The written request should state the basis for the request and should be accompanied by a letter of support from the potential advisor. Comparable experience or compelling reasons of funding is generally required for exemption. The petitions will be submitted to the Program Director, and the decision to approve or not approve will rest with the Graduate Student Advisory Committee (GSAC). Students will receive a written confirmation of the exemption.

3.0 Yearly Program Events

3.1 Annual Retreat

The annual Pathobiology retreat occurs at either Pack Forest, a casual location near Mount Rainier, or at the Center for Urban Horticulture in Seattle each October or November. A subset of faculty members summarize their research in 10-15 minute presentations, with priority to faculty who are accepting rotation students that year. This assists the first-year graduate students in selecting a research laboratory and fosters collaborations between laboratories. Each graduate student (except for new first year students) and postdoctoral fellow is expected to present a poster at the retreat. In addition, time is allocated for a discussion of significant issues important for faculty and graduate students/postdocs. Separate discussions of programmatic and training issues by the faculty and by the students and postdocs are followed by a combined discussion with everyone in attendance. The retreat also provides the opportunity for an evening social gathering. The Program also uses social functions throughout the year to foster interactions between students and faculty at different sites, including a summer potluck picnic, a September gathering to meet the new students, and receptions following the Research Symposia.

3.2 Seminar Series

All Pathobiology seminars are at 4 p.m. on Thursdays during Winter Quarter and open to the public. For room locations see individual seminar dates.

*Please note, in order to receive credit for Pathobiology Seminar (PABIO 580), students are also required to attend Winter Quarter Center for AIDS Research (CFAR) Seminars.

3.3 Winter and Spring Student Research Symposia

A Graduate Research Symposium is held Winter and Spring Quarters. The purpose of the symposium is to provide an opportunity for students to practice giving formal research presentations and to familiarize the faculty, as well as other students, with the research areas and progress of individual students. The Program Manager will solicit written abstracts from students in advance which will be made available to everyone attending the symposium. All students are expected to attend the symposium. All students, except first year students and students who will be presenting their MS or PhD seminar within one quarter, are required to present talks. General Exams should not be scheduled at a time that would compromise a student's ability to participate in the symposium.

The presentations are 10 (second and third year) or 15 minutes (fourth year students onward) and are followed by a five-minute discussion period. It is critical to stay within the time period allotted. The quality of these talks is similar to those given at national meetings. Therefore, the preferred format is a Power Point presentation. As with most scientific talks, the talk should include a brief introduction that explains the significance of the research problem to the audience, as well as the approach taken. We encourage students to discuss their presentation with their research advisor, both before (for planning purposes) and after the symposium (to obtain feedback). Written feedback will also be provided by several other assigned faculty members. It is helpful to practice the talk before other members of the lab, to gain their input prior to formal presentation.

In late spring quarter, first year students will present research talks that focus on work done in one of the rotations of their choice. The presentations are approximately 10 minutes and are followed by a five-minute discussion period. The presentation should follow the format outlined above.

Unless otherwise noted, the Winter Symposium will take place the second Friday of February, the Spring Symposium will take place on the last Friday of April, and the first-year rotation talks will take place on the first Friday of June.

4.0 Program Policies/Guidelines for Success

4.1 Mentoring

One of the main objectives of any PhD program is to train individuals to go from assimilating information to creating new knowledge through research methods. One of the traditional and proven ways to make this transition is through a strong network of mentors.

There are many opportunities for students to find mentors in the Pathobiology Program. You can consider all Pathobiology faculty potential mentors. It is not necessary to limit your mentoring experience to your principal investigator. The program encourages students to approach any of the Pathobiology faculty regarding their research and progress through the program.

For additional resources on how to form mentoring relationships with faculty and others on campus there is a suggested list of resources in Appendix J. It is by no means an exhaustive list of all resources but meant to get you started on the right foot in forming contacts with faculty.

The Program does require one formal mentoring relationship to ensure success in the program. You are required to find a Principal Investigator to advise you on your dissertation research and thesis. You can also expect to carry out your dissertation research in their lab.

The Pathobiology Program is driven by your experience in the lab. Beginning with your three rotations during your first year of the program, you can expect to be exposed to several different styles of leadership from each Principal Investigator (our Pathobiology faculty) who runs their lab. By the tenth week of Spring Quarter in your first year of the program, you are expected to have identified a mentor for your dissertation research and thesis.

Role of Rotations

The first-year rotation experience is meant to give students an opportunity to see a variety of labs and give you exposure to different Pathobiology faculty prior to choosing where you will complete your dissertation research. It is suggested you treat each rotation as a networking opportunity to make an impression on a possible future employer and eventual colleague. The Graduate School has a series of mentoring memos which includes one on “how to get started in a lab”. The link to this memo is <https://grad.uw.edu/advice/getting-started-in-a-lab/>.

The rotation experience is also a time for you to see if you work well with a specific faculty member. It is an audition for a possible slot to complete your dissertation research. It is suggested you treat all rotations in a professional manner to meet this goal.

Selection of the Dissertation Advisor

The Program Director will request first year students to identify their dissertation advisor no later than the tenth week of the third quarter. Thus, first year students should begin discussions with potential advisors no later than late April of their Spring Quarter. The selection of the dissertation advisor is a joint decision of the student and the faculty member, who should discuss the options together. Once a student has identified their dissertation advisor, they must submit the **Advisor Confirmation Form**, found [here](#), to the Program Manager to be placed in their permanent file.

Changing Advisors

A student who already has a permanent advisor and wishes to change the advisor because of personal or research reasons should first discuss the matter with the Program Director or another member of the Graduate Student Advisory Committee (GSAC). If the issues cannot be resolved, that GSAC member will then serve as a neutral party to obtain an understanding between the student and the new and old advisors and facilitate a smooth transition. After a faculty member is identified as the student’s new advisor, the steps below are to be followed.

1. The student will inform the old advisor in writing of their plan to leave the lab at least one month prior to the end of the quarter and provide a copy of the letter to the Program Director and the GSAC.
2. As soon as possible after the student informs the old advisor of the change, and at least two weeks before the end of the quarter, the student, old advisor, and the GSAC member will meet to discuss and agree upon items that need to be completed in the old lab before the switch is made at the end of the term.
3. The student will consult the Program Manager who will work with DGH Academic Human Resources to provide a written letter regarding the requirements of their specific funding vehicle and appointment.
4. The change must be approved by the Program Director who will officially notify all parties regarding the effective date of the change. If the student resigns from the research assistantship before the end of the quarter, the student will be liable for the full amount of tuition for that quarter.

Changes are made effective at the end of that quarter. Requests for deviation from this timeline must be presented in writing to the Program Director for approval.

4.2 Doctoral Supervisory Committee

Your progress in the PhD program will be followed by several individuals. The Graduate Student Advisory Committee (GSAC) will monitor your progress until you select an advisor and your Doctoral Supervisory Committee is formed. Please bring questions concerning course offerings and curriculum to them. One of these individuals will serve as your primary GSAC advisor. In the event that you perceive you are having problems with your academic or research program before you have a formal mentor, please discuss this with your GSAC advisor or the Program Director.

Formation of the Doctoral Supervisory Committee

The Doctoral Supervisory Committee, which should be formed by the end of the Autumn Quarter, second year, will consist of your research advisor (usually serving as chair), at least two other faculty members (two must be from the Pathobiology Program), and the Graduate School Representative (GSR). This last individual is selected by the student and research advisor and is formally appointed by the Dean of the Graduate School. Please refer to <https://grad.uw.edu/policies/graduate-school-representative-gsr-eligibility/> for information concerning GSR eligibility. In brief, the GSR must meet the following conditions:

1. The GSR cannot have a conflict of interest with the student and/or dissertation committee chair (Budgetary relationships, personal relationships, or research and/or publication relationships between the GSR and either the student or the committee chair are examples of possible conflicts of interest.)
2. The GSR cannot have a primary, joint, or affiliate appointment in the dissertation committee chair's department.
3. The GSR cannot have endorsement to chair from the same department as the dissertation committee chair.

The Doctoral Supervisory Committee can also include **one** member who has not been appointed to the graduate faculty. All members have voting privileges. For both the General Examination and the Final Examination (Dissertation Defense), at least four members of the committee (including the Chair, GSR, and one additional Graduate Faculty member) must be present. The composition of the committee should be sent to the Program Director for approval via email. Once the Doctoral Supervisory Committee is approved, the Program Manager will enter the committee into MyGrad. The committee should be formed at least four months prior to the oral part of the General Examination.

Committee Meetings

This committee meets with the student at least once a year (the committee may request to meet more often). It is the responsibility of the student to arrange these meetings. For each committee meeting, the student should prepare a brief oral presentation documenting their progress. The committee will complete a brief report regarding your progress after each meeting on the **Report of Graduate Student Committee Meeting**, found [here](#). The student is responsible for bringing this form to the committee meeting. The completed form should be sent as email attachment to the Program Manager.

The program expects the following with regards to committee meetings:

1. Students are expected to have formal committee meetings at least once a year. While we encourage you to meet with any member of your committee or any faculty member at any time to discuss research, this does not substitute for or replace a committee meeting. The intent of these meetings is for you to update your research progress and receive critical evaluation of your work, help in problem solving, and advice on current and future research directions. This forum should also provide a consensus of the committee on your progress and expectations so that everyone is on the same page and there is no ambiguity.
2. When the decision is made to defend your dissertation, there should be a formal committee meeting where committee members agree that the student is ready to do so. This agreement should be documented in the **Report of Graduate Student Committee Meeting**, found [here](#), which all committee members should sign.
3. Annually during a committee meeting, the student should present a completed **Individual Development Plan (IDP)** found [here](#). The **IDP** should be discussed with Mentor and Committee. The **IDP** should be submitted to the Program Manager after discussion so it may be filed in the student's academic file.

4.3 Program Committees

The Pathobiology Graduate Program has six committees that deal with various student-related activities and issues. They are the Steering Committee, the Graduate Student Advisory Committee (GSAC), the Program Event Support Committee (PESC), the Curriculum Committee, the Admissions Committee, and the Diversity, Equity, and Inclusion (DEI) Coalition. The latter four committees have student members.

Student Committee Members

There are four opportunities to serve on program committees for students. The purpose of these appointments is to give students a professional development experience. Committee work is part of working for a university and/or many other organizations. The expectations for students who serve on these committees are the same as what is expected of faculty who are appointed to a committee.

The *Program Event Support Committee* includes all second-year students. The students serve a one-year term.

The *Admissions* and *Curriculum Committees* each have one slot for a student member. The individual committees determine their student member. Interested students should direct their inquiries to the chair of each committee for consideration.

The *DEI coalition* is a group of students and faculty working toward the goal of increasing diversity, equity, and inclusion within the Pathobiology program. Students and faculty self-nominate to join the group.

In addition, there is a Student Diversity and Inclusion Representative. The representative is appointed directly by the students in the Pathobiology Program. This Representative will help to connect Pathobiology students with local opportunities for discussing diversity, race, privilege, and inclusion as they relate to our work in life sciences research. Specifically, this student will attend Hutch United meetings at Fred Hutchinson Cancer

Center as a representative of the Pathobiology Program and will keep Pathobiology students informed about Hutch United seminars and workshops. The Representative may also choose to join ad hoc committees to help organize Hutch United events or other diversity related activities for the Pathobiology program. In addition, the student will communicate in concert with the current Pathobiology representative on the Department of Global Health "Diversity, Equity, and Inclusion Committee" to ensure that relevant information is made available to the Pathobiology Program. Collectively, these interactions seek to provide a multi-faceted perspective of these core principles critical to our Program's mission of training our future scientific leaders.

Pathobiology Program Committees

1. Steering Committee

Charge:

The Pathobiology Steering Committee is charged with oversight of the Interdisciplinary Program in Pathobiology and its governance

Membership*:

The Committee consists of four members and is headed by the Pathobiology Program Director.

Responsibilities:

Coordination of all aspects of the Graduate Program.
Development and implementation of Program Policies.

2. Admissions Committee

Charge:

The Pathobiology Admissions Committee is charged with oversight of admission and entry of applicants into the graduate program. Responsibilities include review of program admission requirements, program advertisement, application procedures, recommending funding strategies, the review process, establishing entry into the program.

Membership*:

The Admissions Committee will consist of five faculty members, including a committee chair, and a graduate student representative who is selected in consultation with the Admissions Committee chair. Faculty will serve staggered three-year terms, while the student representative is appointed annually. The Pathobiology Program Director is an ex *officio* member and, in addition to the Program Manager, attends committee meetings.

Responsibilities:

The Committee has the following responsibilities:

1. Review and recommendation of revisions of the requirements for admission into the PhD and MS programs including out-of-cycle applications and those for transfer from other programs and from the MS to the PhD program.
2. The development and distribution of informational materials to advertise the graduate program.
3. Oversight of the application process including revision of application packet materials.
4. Operation of the process of reviewing applications for admission.
5. Operation of the process of offering admission including follow-up.
6. Development of guidelines and recommendations for funding accepted students for their first year.

3. Curriculum Committee

Charge:

The Curriculum Committee is charged with oversight for the teaching program in Pathobiology including the detection of curriculum gaps, course duplication and overall quality control. Responsibilities include programmatic development, proposal of teaching assignments to the chair, and supervision of peer and student evaluation.

Membership*:

The Committee will consist of four faculty members and an elected student representative. Faculty will serve staggered three-year terms, while the student representative is elected annually. The chair also serves on the GH Curriculum Committee, and on the SPH Curriculum and Educational Policy Committee. The Program Manager also attends committee meetings which occur at least twice per year.

Responsibilities:

The Committee is responsible for the development and oversight of the teaching program. This includes the proposal of teaching assignments and timing of course offerings. The Committee will administer the Peer Evaluation of Teaching program and is responsible for providing course instructors information on the UW Student Evaluation program. The Committee will make course peer review assignments and will review both peer and student evaluation results.

The Committee advises instructors in preparing new courses, reviews all new course proposals and course changes, and makes recommendations to the director regarding approval of those submissions. Periodically the Committee will review the curriculum to determine if there is any duplication or if there are any gaps in the curriculum.

The Committee is also responsible for reviewing and proposing any changes to other curriculum-related aspects of the graduate program, such as the procedure for the General Exam.

Significant proposed policy or procedural changes are brought to the faculty for discussion and vote before implementation.

4. Graduate Student Advisory Committee

Charge:

The Pathobiology Graduate Student Advisory Committee is charged with monitoring the academic progress of Pathobiology graduate students.

Membership*:

The Graduate Advisory Committee will consist of several faculty members and the Pathobiology Program Director, who chairs the committee.

Responsibilities:

The Committee members serve as temporary advisors for new students until a final advisor is chosen and provide advice to students on course work. The Committee meets at least once every quarter to review the progress of each student. If a student is not progressing satisfactorily through the program, or is doing poorly in course work or research, the student and the student's major advisor are notified.

The committee members will serve as a neutral body to aid in the resolution of problems between students and instructors or advisors. Student requests for major advisor transfers will be reviewed by the committee.

The Graduate Student Advisory Committee also monitors thesis and dissertation committee activities to ensure they are meeting as required and providing documentation of those meetings.

The committee supervises the operation of the laboratory rotation program.

5. Program Event Support Committee (PESC)

Charge:

The Pathobiology Program Event Support Committee (PESC) provides support for our annual program events, including the retreat, the winter and spring research symposia, and the first-year rotation talks.

Membership*:

The committee consists of three faculty members and the 2nd year Pathobiology students. The faculty members are appointed by the Graduate Program Director. The Program Manager is the primary lead of this committee.

Responsibilities:

For students, help to line up faculty to speak at the retreat, moderate sessions and help the program manager to plan and organize refreshments and social events.

For faculty, help to line up faculty to speak at the retreat, be present at the events as representatives of the program and provide opening and closing remarks at the research symposia, and help organize poster judging at the annual retreat.

6. DEI Coalition

Charge and responsibilities:

The Pathobiology DEI Coalition aims to create a community of faculty, staff, and trainees that actively work toward and advocate for equity and inclusivity by committing to the following aims:

1. Recruitment
 - a. Diverse representation on admissions committee
 - b. Evaluation of all applications by at least three members of the admissions committee
 - c. Training of all student and faculty interviewers in interview best practices to reduce bias
 - d. Implementation of standardized and core value-assignment based evaluation for interviews
2. Retention
 - a. Development of small groups (“pods”) of faculty and students to facilitate community
 - b. Active highlighting of a wide range of faculty and students at program events
3. Mentoring
 - a. Active recruitment of diverse faculty into the Pathobiology program
 - b. Career support for current students that recognizes the diversity of future careers
4. Teaching
 - a. Prioritization of seminar invitations to reflect diverse student interests

Membership*:

Membership on the committee is on a voluntary basis for both students and faculty – all are welcome. Leadership is jointly held by students and faculty. For more information about joining, please contact faculty lead for 2023-2024 academic year.

*Current Membership for *all* committees listed above can be found on the **PATHOBIOLOGY STANDING COMMITTEES** page located here:

<https://globalhealth.washington.edu/academic-programs/phd-pathobiology/handbooks-resources>

4.4 General Examination

The General Exam should be completed by the end of Autumn quarter of the third year, or Winter quarter at the latest, and is administered by the Doctoral Supervisory Committee. The Doctoral Supervisory Committee should be formed at least four months prior to the oral examination. The student will reserve a room for the exam for a period of three hours. Once the room and Doctoral Supervisory Committee member's attendance is confirmed, the student will enter a request for the General Exam date, time, and location into the [MyGrad](#) system. Please email the Program Manager after you enter this request. The Program Manager will then approve the request, which conveys this information to the Graduate School. The student and their mentor will receive an electronic copy of the exam Committee Signature Form via email once the exam is approved. All committee members will also receive an email confirmation regarding the exam once the information has been conveyed to the Graduate School. The examination should not be scheduled at a time that would compromise the student's participation in the annual Graduate Research Symposium.

Content of the Oral Examination

The oral exam will cover the following areas:

- The student's research area. In depth knowledge, including familiarity with both background literature and current research is required. This would include knowledge of specifics as well as generalizations. It would encompass an understanding of research findings and their importance, as well as critical questions that are unresolved. The student should be able to critically evaluate this body of work. **The student's Dissertation Research Proposal will form the basis of the General Exam and must be submitted to the committee members at least two weeks prior to the examination.**
- Areas related to the student's research. A moderate level of knowledge regarding this body of work is required. Familiarity with literature, current research and important questions is expected, but the depth of specific knowledge is not expected to be as complete as for the directly related areas.
- Areas not directly related to the student's research but covered in Pathobiology coursework.

The students are encouraged to meet with committee members to gain input on general emphasis areas for the oral exam. However, by Program policy, students are not to be provided with questions or the definition of specific areas of questioning in advance. Committee members may wish to suggest certain readings, although the examination is not restricted to those readings.

Dissertation Proposal

Prior to the oral examination, the student must provide (at least two weeks before their exam) a copy of their written dissertation proposal to their committee members. This proposal should be focused on the student's dissertation research. It is written in a format similar to an NIH research proposal (e.g. R21 or F31 Fellowship). The application should be written in Arial 11-point font. Please note that the page limits include figures.

The format should include the following:

1. Abstract

- Include succinct explanation of the hypothesis to be tested and the objectives and methods to be used.
- No more than 30 lines of text.

2. Specific Aims

- What are the specific goals of your proposed research?
- Briefly summarize how each aim will be accomplished.
- No more than 1 page

3. Research Strategy - Include:

- The significance of your research, including background/literature review.
- Preliminary results.
- The approach you will take to explore each aim, expected outcome, and alternative approaches.
- No more than 6 pages

4. Literature Cited

Format of the General Examination

In order for the General Exam to proceed, the advisor and Graduate School Representative (GSR) must be present with at least two other committee members. If a committee member fails to appear for the exam, please follow the following procedures as outlined by the Graduate School:

1. If the Chair is not present, wait 15 minutes (or longer if appropriate) then adjourn the exam and reschedule to a later time/date.
2. If the GSR is not present, wait 15 minutes then notify your Program Manager. *The student's department may ask a member of the graduate faculty outside its department and the Chair's department to serve as a replacement. Once the replacement GSR is present, the exam may proceed. Before conveying exam outcome, the GSR must be updated on the official records.*
3. If a general member is not present and the quorum of four members (as stated above) is not intact, the exam should be adjourned and rescheduled to a later time/date, **OR**, the exam may adjourn momentarily until another field-specific faculty member can be found as a replacement.
4. If a general member is not present but the quorum of four members is intact, the exam may proceed.

In all cases, an attempt must be made to contact the absent member before taking any action.

5. The exam cannot proceed unless a Committee Signature Form has been obtained and brought to the oral examination.
6. Prior to the start of the oral examination, the student's advisor will meet with the committee to give an evaluation of the student's academic performance, research performance, and potential. The evaluation should include an assessment of the student's motivation, creativity, independence, laboratory skills, knowledge of the literature, ability to design and execute experiments, and oral and written communication skills.
7. A member of the Supervisory committee other than the advisor or the GSR will chair the oral exam. The Chairperson will be responsible for maintaining objectivity in the conduct of the examination. The advisor will refrain from volunteering information (or answering questions) but may provide comment or clarification, if this is requested by the committee. The advisor may be requested by the chairman of the committee to ask one or more questions of the student. The advisor is a voting member on the oral exam. The advisor is the chair of the student's doctoral supervisory committee and signs the Committee Signature Form as such.
8. At the beginning of the oral examination, the student should give a brief presentation (30-40 min) on the thesis research project including background, experimental results and projected future experiments. Sufficient time will be provided for each committee member to pursue a line of inquiry that may focus on the student's specific research area or general knowledge of Pathobiology. It is expected that the entire exam will entail up to three hours.

9. At the end of the exam, both the student and the advisor will leave the room. This allows the committee to discuss the exam performance in the absence of the advisor. The committee will vote on the outcome of the exam in the absence of the advisor.
10. The final decision must be one of the following: Pass, Re-examine, or Fail. If the committee feels that there are deficiencies that need to be corrected, the Re-examine option is appropriate.
11. Following the decision, the Committee will recall the advisor to discuss the outcome, including soliciting the advisor's evaluation and vote on the student's performance. At this point, the student will be recalled to be informed of the committee's decision. Regardless of the outcome, the advisor and the committee members should provide specific feedback to the student; this may be done partly at the meeting and, if detailed input is appropriate, partly in later individual meetings. This may include suggestions for additional coursework or reading. If the student needs to be re-examined, the committee will outline those areas that require attention and provide recommendations to enable the student to address the perceived deficiencies.
12. If a student fails the exam a second time, it can only be retaken with approval of the Dean of the Graduate School.
13. Successful completion of both components of the General Exam results in the admission of the student to candidacy for the doctoral degree.

4.5 Dissertation/Thesis

Format: Writing and defending the doctoral dissertation is the final requirement for a PhD. Your Supervisory Committee determines if you have completed a body of work meeting the standards of the program. Students should follow the Graduate School's Formatting Guidelines at: <https://grad.uw.edu/for-students-and-post-docs/thesisdissertation/etd-formatting-guidelines/>.

Dissertation: The dissertation must be of such quality that at least one published article (with the student as the first author) results. At least one first author article must have been submitted for publication before the Final Examination.

Appointment of the Reading Committee: When the Doctoral Supervisory Committee determines at a formal committee meeting that the student is ready for the Final Examination and documents this decision with each committee member signing the **Report of Graduate Student Committee Meeting**, found [here](#), the Reading Committee should be appointed. To setup the Reading Committee, the student or their advisor must email the Program Director and Program Manager to obtain approval for the members. Upon approval from the Director, the Program Manager will enter the Reading Committee information in MyGrad. This will generate a confirmation email to all Reading Committee members. The student will then be able to request their Dissertation Defense/Final Examination in [MyGrad](#).

4.6 Dissertation Defense

After the Reading Committee is officially established, a request for approval to conduct the Final Examination will be submitted to [MyGrad](#). This request should be submitted at least three weeks prior to the Final Examination date. The dissertation presentation will be advertised and is open to the public. Following this presentation, the PhD candidate will meet with the Doctoral Supervisory Committee. Each member will question the student on any aspect of the dissertation. If the Final Exam is passed, the Committee Signature Form is signed and returned to the Program Manager who will convey the result to the Graduate School. The student has until the end of the quarter in which they defend to submit their written dissertation. Students are

required to submit an Electronic Thesis/Dissertation and the Committee Approval Form to the Graduate school through the UW ETD Administrator Site.

4.7 Academic Progress

Required Progress in Year 1 for Program Continuation: In the first year of the Program, the student must formalize an agreement with a mentor, who will guide and financially support their doctoral research studies. Failure to achieve this agreement by the end of the fourth quarter in the Program will result in dismissal from the Program (see page 15 under Pathobiology Rotation Program).

Academic Progress in all other Programmatic Requirements: The procedure follows the University's general guidelines. The judgment will take into consideration an individual student's situation and magnitude of deficiency. Evaluation of student performance includes: 1) maintenance of a minimum GPA of 3.0, cumulatively and for each quarter of coursework, 2) satisfactory progress in fulfillment of program requirements and expectations, and 3) satisfactory research progress and performance.

Unsatisfactory progress in any of these areas may result in the following actions:

| | |
|--|-----------------|
| First time | Warning |
| Second time | Probation |
| Third time | Final probation |
| Deficiency not corrected after final probation | Drop |

It should be noted that a warning is documented by the Program but is neither reported to the Graduate School nor appears on the student's transcript. All other recommended actions are transmitted to the Graduate School.

1. Unsatisfactory grades

Grades will be monitored on a quarterly basis by the Graduate Student Advisory Committee (GSAC).

2. Failure to demonstrate mastery of core competency. Students must demonstrate competency in four subject areas (molecular biology/biochemistry, cell biology, immunology, and public health).

This is done in one of three ways,

- 1) Obtaining a 3.0 or better in the core courses (PABIO 550, PABIO 551, PABIO 552, PABIO 553, and IMMUN 441 or IMMUN 532);
- 2) Successful completion of a competency exam and;
- 3) Fulfillment of requirements stipulated by the first-year student committee if the competency exam is not passed.

Failure to demonstrate competency in one of these ways is considered a demonstration of unsatisfactory academic progress.

If a student is unable to demonstrate mastery of a core course through meeting the grade requirement and/or passing a competency exam, a special committee is assembled which includes members of the GSAC, core curriculum instructors, and the newly assigned faculty advisors for the students. Their role is to identify areas of weakness early and get support for remediation of these areas. They will provide the student with a list of items to accomplish to demonstrate mastery of the core area.

3. Unsatisfactory research progress

It is the responsibility of the thesis, research, or dissertation Supervisory Committee to evaluate research progress of students under their supervision and take proper action accordingly, e.g., failing General or Final Examination. Failure to progress will be recorded in the Report of Graduate Student Committee Meeting and the report kept in the student's file.

4. Unsatisfactory progress on the PhD General Examination

It is the responsibility of the Dissertation Supervisory Committee of each student to evaluate the performance of the student on the General Examination. The Committee has three options that it may utilize in grading the General Examination:

1. The Committee may pass the student in which case the student confers PhD candidacy and progresses toward conferring the PhD degree.
2. The Committee may decide to re-examine the student after a further period of study. The Dean of the Graduate School will approve at most two re-examinations.
3. The Committee may decide not to recommend the student for further work toward the PhD degree. The effect of this recommendation is termination of the student's enrollment in the doctoral program. If this occurs, a Pathobiology student may choose to establish a Master's Thesis Committee, write a thesis, and give an oral presentation on the thesis. If the Committee approves the thesis and all Graduate School requirements are met, the MS degree will be conferred.

Examples of scenarios of unsatisfactory progress

1) Core competency example one

| | |
|------------------------------|---|
| First Time - Warning | Student earns a 2.7 in PABIO 551, a core competency class, during Autumn Quarter. |
| Second Time - Probation | Student has a GPA less than 3.0 Winter Quarter. |
| Third Time - Final Probation | Student has a GPA less than 3.0 Spring Quarter. |
| Fourth Time - Dismissal | Student fails competency exam. |

2) Core competency example two

| | |
|------------------------------|---|
| First Time - Warning | Student earns a 2.9 in PABIO 552. |
| Second Time - Probation | Student has a GPA that falls below 3.0 the next quarter. |
| Third Time - Final Probation | Student takes core competency exam and fails. First year committee meets with the student and a specific list of tasks for remediation by |

| | |
|-------------------------|--|
| | the student to meet core competency requirement is outlined. |
| Fourth Time - Dismissal | Student fails to meet these requirements. |

3) Academic/ Research competency example

| | |
|------------------------------|---|
| First Time - Warning | Student has GPA less than 3.0 in Spring Quarter of Year 1. |
| Second Time - Probation | Student has a GPA less than 3.0 in Winter Quarter of Year 2. |
| Third Time - Final Probation | Student meets with Doctoral Supervisory Committee who determines that research progress is unsatisfactory and sets specific goals that must be met within six months. |
| Fourth Time - Dismissal | Student meets with Doctoral Supervisory Committee in six months and has not met the goals outlined by the Committee. |

Procedure for Dismissal from the Doctoral Program Prior to Formation of Committee

Students who enter into the Pathobiology Graduate Program to pursue doctoral studies, but demonstrate unsatisfactory progress (e.g. poor progress in courses) may be required to address deficiencies by specific actions (e.g., take additional coursework, write a research paper), may be required to switch to the MS Program, or may be dismissed from the Pathobiology Graduate Program. In deciding among these options, the Program Director and members of the Graduate Student Advisory Committee (GSAC) will gather input from faculty involved in coursework, the rotation and current mentors, and from the student. The input will be considered by an ad hoc committee (comprised of the Program Director, the GSAC, and one additional faculty member with direct knowledge of the student and core course instructors) in their assessment of the student's past performance and potential for future performance. The goal is to determine the best option for the student and program, considering that poor early progress may indicate that this career track is not optimal for the student.

4.8 Grievance Procedure

Occasionally major difficulties arise during a student's tenure at the University. We recommend that the student first talk with members of their advisory committee and/or with the GSAC. If the situation cannot be resolved, specific grievance procedures are outlined in the Policy 3.8: Academic Grievance Procedure:

<https://grad.uw.edu/policies/3-8-academic-grievance-procedure/>. The School of Public Health Student Concern Policy also provides procedures for reporting concerns and other resources available at the UW to assist in resolving concerns (<https://sph.washington.edu/students/student-concern-policy>).

4.9 Scientific Ethics and Appropriate Behavior

Scientific integrity is a vital issue involving all participants in scientific endeavors. A number of concerns are included within this area. Most importantly, falsification or misrepresentation of data and plagiarism, whether of

written documents or ideas, in class or in publications, are extremely serious offenses against the entire scientific community. Accuracy in record keeping and appropriate citation of others' work are crucial. Appropriate personal interactions are also important. An air of mutual respect among members of your lab and with other colleagues will produce both a more pleasant and a more productive atmosphere. Compliance with rules governing safety and health issues will benefit both you and those who work around you. Compliance with human subjects and animal welfare regulations is similarly important. Failure to follow health and safety regulations or human subject and animal regulations has serious legal, as well as ethical, consequences. The National Institute of Health regulations state that original laboratory notebooks should stay in the lab. Students may take photocopies with them.

Deliberate ethical misconduct in science appears to be rare, but ethical questions sometimes do not have simple answers. You are encouraged to consider and discuss ethical issues. There are a number of formats for this. PABIO 553 includes case-based discussions of a number of ethical issues, and ethical issues are discussed within several other required courses. The School of Public Health presents seminars on ethics in science, which you are strongly encouraged to attend. The School of Medicine also presents a biomedical research integrity series on this subject (<https://depts.washington.edu/bhdept/biomedical-research-integrity-bri>), and all students are strongly encouraged to attend these lectures and discussions. Informal discussions with faculty, staff, and other students also provide a forum for investigating these ideas. Students are required to follow the guidelines for appropriate behavior specified by the University (<http://apps.leg.wa.gov/WAC/default.aspx?cite=478-120>) and by the site at which they conduct their graduate research.

4.10 Mandatory Training

All Pathobiology students must receive safety training relevant to their laboratory research. Such training may be obtained through Environmental Health & Safety (EH&S), and lists of available training opportunities are on their website: <http://www.ehs.washington.edu>. A two-day series of training programs are held each Autumn; these are ideal for incoming students. Many of the required trainings are also available online and can be completed prior to the start of the Pathobiology Program.

Persons working with human tissues or blood products must take training in Bloodborne Pathogens.

All students who work with radioactive materials must have radiation safety training. In addition, Pathobiology students must attend a chemical safety class. They must read, understand and comply with the chemical hygiene plan in their laboratory.

Students who will be working with animals must attend the appropriate classes given by the Department of Comparative Medicine. These classes are given at regular intervals throughout the year.

Similarly, all students whose research involves human subjects (or samples derived from human subjects) must attend training provided by the Human Subjects Division.

Each off-campus program site has specific training requirements that students must follow. Consult with your advisor or safety officer at that site for details.

4.11 General Information for Pathobiology Students

Mailing Address

Pathobiology Graduate Program Office
Box 351620
Hans Rosling Center
3980 15th Ave NE, Office 761B
Seattle, WA 98195
Phone: (206) 543-4338

Student Mailboxes

Most students have a mailbox at their lab location. Please ask your rotation advisor or permanent advisory regarding policies for obtaining access to a mailbox/mail delivery box number.

Telephones and Copying

Personal phone calls should be kept to a minimum to facilitate research use of phones. Personal long-distance calls cannot be made from laboratory phones. If you need to make a long-distance call pertinent to an order or your research, check with your faculty advisor. Copy machine codes may be required depending on your location. Check with your faculty advisor.

Supplies and Equipment

It is important that all students recognize that the state budget for Pathobiology does not provide for the purchase of supplies and equipment for student research. Instead, faculty members provide such funds from their individual research grants for their students. Please ask your rotation advisor or permanent advisor for the appropriate budget number when ordering supplies.

Ordering Procedures

Orders are placed by different procedures at each institution, and always require approval from either the faculty advisor or their designee. Complete the required forms fully to avoid delays.

Lab Coats

Please ask your rotation advisor or permanent advisory regarding policies for lab coat maintenance.

Department Computer and Study Space/UW Library System

Students may utilize student spaces located in the Hans Rosling Center for Population Health on the 7th floor. Desks are available to students on a first-come-first-serve basis in the 750 desk bank. Room 742 is dedicated to student group study. Students also have access to computers and study rooms in the [UW Library System](#).

UW Email and Communication

All students should promptly establish an email account by visiting [MyUW](#). Please inform the Program Manager of your email address and check your email frequently, as all official program and UW communication occurs via e-mail. The Graduate School has established the MyGrad Website at <http://grad.uw.edu/for-students-and-post-docs/mygrad-program>. Students can also consult the Pathobiology Program web page at <http://globalhealth.washington.edu/education-training/phd-pathobiology> for information and links to procedures and program requirements.

Student Representatives

Students select a Senator, Student Representative, Student Seminar Representative, and Student Diversity and Inclusion Representative during the Summer Quarter each year for the upcoming academic year.

The Senator represents student issues and concerns at the Graduate and Professional Student Senate (GPSS) meetings which occur on a semi-monthly basis. The Senator is also responsible for appropriation of the annual GPSS allocation of funds to the Pathobiology Program.

The Student Representative is a member of the School of Public Health Student Affairs Committee. The Student Representative also represents student interests and concerns at Pathobiology faculty meetings.

The Student Seminar Representative provides the seminar organizer with input on the seminar series and also organizes a handful of lunches/happy hours on seminar days. This student also helps the speakers get from campus to other institutes he/she may be visiting while here in Seattle and helps as needed to make the seminars run smoothly.

The Student Diversity and Inclusion Representative attends the DGH and Hutch United meetings at FHCC. Hutch United hosts seminars, workshops, and mentoring groups surrounding this mission with a focus on how issues of diversity and representation affect bench scientists.

Student Public Health Association

The Student Public Health Association (SPHA) was formed in the spring of 1996 to promote a positive Graduate School experience for all the students with public health interest. As a part of its function, SPHA will host brown bag lunches to foster interdisciplinary learning, work to represent students' voices in various committee meetings, provide educational opportunities through conferences and tours of various facilities, arrange networks with future mentors and colleagues, and organize social activities. If you are interested in finding out more about SPHA, please e-mail the organization at spha@uw.edu.

Health Care

Hall Health Primary Care Center (<https://wellbeing.uw.edu/unit/hall-health/>) provides routine health care for students. Graduate students with Research Assistant or Teaching Assistant appointments are eligible for Graduate Appointee Insurance Program (GAIP) insurance coverage, and should consult the GAIP website: <http://www.washington.edu/admin/hr/benefits/insure/gaip/index.html>. Students should consult with individual personnel or business office for benefits at their specific site. Your GAIP insurance terminates on the last day of the month of your last quarter in our program. If your last quarter is Spring or Summer Quarter, your GAIP insurance terminates on September 30th.

Student Services

Information regarding Student Union, UW Recreation facilities and a myriad of other Student Services are available directly from this link: <https://www.washington.edu/students/servicesforstudents/>.

Research Assistant, Stipend, and Fellowships

Students are funded on a yearly basis contingent on academic progress and funding availability. It is the student's responsibility to understand how they are funded. Each student's package consists of one or a combination of a Research Assistantship, stipend, and/or fellowship. Depending on your source of funding, taxes may or may not be withheld. It is possible to owe taxes at the end of the year on some of your funding. While the University of Washington cannot advise on taxes we can provide some resources to assist students.

Tax information from UW Payroll can be found here: <https://finance.uw.edu/tax/ee-ic/employees/payroll>. In addition, Student Fiscal Services offers informational sessions on taxes for students each year. You can visit their website for further information at <http://f2.washington.edu/fm/sfs>.

You can also consult a tax accountant.

Travel Funds

Occasionally funds are allocated for Pathobiology graduate students who are going to give research presentations at scientific meetings. Contact the Program Manager regarding travel fund opportunities.

Appendices

New Student Checklist

- ☐ **Set up a UW NetID and email**

Admitted students receive their student number and PAC (personal access code) after accepting the offer of admission. With a student number and PAC, a UW NetID can be set up: <https://admit.washington.edu/uw-netid/>. A student's UW NetID will precede @uw.edu and become the student's UW email address. Information regarding establishing your UW email can be found here: <http://www.washington.edu/itconnect/connect/email/>.
- ☐ **Communicate with your student host**

Incoming students are paired with a continuing student during the admissions process. Student hosts can assist with the transition of moving to Seattle, entering graduate school, and the identification of social and cultural resources.
- ☐ **Register for courses**

In order to register for courses, students must first have established a UW NetID. International students must also complete an online check-in. Students should reference the UW [Academic Calendar](#) for dates of instruction, registration deadlines, school holidays, and more.
Faculty Add codes: Some PABIO courses (PABIO 500,600,700,800) are restricted by faculty codes. Your Program Manager will communicate with you regarding obtaining your PABIO 500 (Rotation) Faculty Add Code prior to the start of the quarter, in addition to your other Autumn quarter required course registration.
- ☐ **Find housing:** The majority of our students live off-campus in shared housing. Campus housing information can be found through UW Housing and Food Services. They offer housing options for single students and students with families. For off-campus housing, Craigslist is more often used. The UW School of Law has a list of neighborhood descriptions to assist with identifying housing: <http://www.law.washington.edu/Admissions/Admits/Housing/>. In addition, the current Pathobiology Students hold online information session to assist you with finding housing and other logistical questions regarding living in the Seattle area. Information regarding this session will be sent to incoming students during the Summer prior to your first Autumn Quarter.
- ☐ **Research transportation options**

Most students utilize the U-PASS linked to your Husky Card to travel by Metro bus, Seattle Street Car, and Link light rail around town. Students automatically have access to the pass each quarter they are registered. Extensive bike and walking trails are found around Seattle as well. The closest airport to Seattle is SeaTac International Airport. For new residents, referring to a map of the Seattle area is strongly recommended; with so many bodies of water and hills it can be a confusing city to navigate.
- ☐ **Set up your first rotation lab**

The Program Manager will send out a list of faculty looking for students for rotations by July. You are encouraged to contact faculty directly to discuss. Plan to have your rotation set up by the beginning of September at the latest.
- ☐ **Get your Husky Card**

The Husky Card is the official identification card for members of the University of Washington community. The U-PASS is electronically embedded into the Husky Card (you'll scan it when you get on the bus or other transportation that is covered). A Husky Card should be obtained as soon as a student arrives on campus. The Husky Card Account & ID Center is located on the ground floor of the Odegaard Undergraduate Library: <https://hfs.uw.edu/Husky-Card-Services/Husky-Card/ID-Center-Locations>
- ☐ **Apply for Washington state identification**

New Washington state residents are legally required to get a Washington state driver's license or ID card within 30 days of moving to the state. Check out the Washington State Department of Licensing website (<http://www.dol.wa.gov/officelocations.html>) to find office locations and information on what

type of identification is needed when applying for an ID or driver's license. If eligible, you can also register to vote when getting an ID.



Explore UW resources

The UW Student Guide (<http://www.washington.edu/students>) is a comprehensive reference for UW students and includes information on Academics, Finances, Student Life, University Policies, and much more. The University Bookstore (<https://www.ubookstore.com/>) is where you can purchase Husky products and books for class.



Prepare for the first day of class

Helpful maps include a campus map (<http://www.washington.edu/maps>) and a Health Sciences Building (HSB) map (<https://globalhealth.washington.edu/sites/default/files/HealthSciencesMap.pdf>). The Health Sciences Building is where many of your classes will be held. It is a very confusing building! You are highly encouraged to locate your classrooms in advance of the first day of class.



Attend school and departmental orientations

Attendance at the Pathobiology Program Orientation is required for all entering students. Typically, it is held the week prior to the beginning of Autumn Quarter.



Attend the TA/RA Conference sessions that are relevant to you

The conference schedule is at the Center for Teaching and Learning website:
<https://www.washington.edu/teaching/programs/ta-conference/>.

Appendix B

First Year Student Checklist

To do:

- ☐ Pathobiology Program Orientation
- ☐ Attend Pathobiology retreat and Pathobiology symposia (winter and spring)
- ☐ Complete three lab rotations
- ☐ Take PABIO core courses
- ☐ Give Pathobiology rotation talk
- ☐ Select dissertation lab by June
- ☐ [IDP](#) – Complete and submit to Program Manager

Coursework:

Autumn

- ☐ PABIO 500
- ☐ PABIO 550
- ☐ PABIO 551
- ☐ PABIO 581
- ☐ IMMUN 441

Winter

- ☐ PABIO 500
- ☐ PABIO 552
- ☐ PABIO 580
- ☐ PABIO 553

Spring

- ☐ PABIO 500
- ☐ PABIO 536
- ☐ PABIO 582
- ☐ PABIO 591

Autumn, Winter or Spring

- ☐ HSERV 579*

Summer

- ☐ UCONJ 510 (2 credits)

* This course is offered AUT/WIN/SPR quarters – recommended to be taken in the First Year of Program. It is best for the First Year Students to **take this course during their Spring Quarter**; however, it can be taken in Winter Quarter if it works with your schedule.

Appendix C

Second Year Student Checklist

To do:

- ☐ Carry out research in dissertation lab
- ☐ Attend Pathobiology retreat and Pathobiology symposia (winter and spring), plus first year rotation talks
- ☐ Complete PABIO core and elective class work
- ☐ Select Supervisory Committee during Autumn Quarter
- ☐ Hold committee meeting(s)
- ☐ Update [IDP](#) – Discuss with Mentor, Committee and submit to Program Manager

Coursework:

Autumn

- ☐ PABIO 581
- ☐ EPI 511
- ☐ PABIO 600

Winter

- ☐ PABIO 580
- ☐ PABIO 600

Spring

- ☐ PABIO 582
- ☐ PABIO 591
- ☐ PABIO 600

Summer

- ☐ PABIO 600 (2 credits)

Appendix D

Third Year Student Checklist

To do:

- ☐ Carry out research in dissertation lab
- ☐ Attend Pathobiology retreat and Pathobiology symposia (winter and spring), plus first year rotation talks
- ☐ Complete General Exam by Autumn Quarter
- ☐ Hold committee meeting(s)
- ☐ Update [IDP](#) – Discuss with Mentor, Committee and submit to Program Manager

Coursework:

During the Third Year Any Quarter

- ☐ PABIO 598

Autumn

- ☐ PABIO 581
- ☐ PABIO 600

Winter

- ☐ PABIO 580
- ☐ PABIO 600 (if General Exam not completed) or PABIO 800 (if General Exam passed)

Spring

- ☐ PABIO 591
- ☐ PABIO 600 or 800

Summer

- ☐ PABIO 600 or 800 (2 credits)

Appendix E

Fourth Year and Beyond Student Checklist

To do:

- ☐ Carry out research in dissertation lab
- ☐ Attend Pathobiology retreat and Pathobiology symposia (winter and spring), plus first year rotation talks
- ☐ Complete didactic teaching requirement
- ☐ Hold committee meeting(s)
- ☐ Complete dissertation and final exam
- ☐ Update [IDP](#) – Discuss with Mentor, Committee and submit to Program Manager

Coursework:

Autumn/ Winter/ Spring/ Summer

- ☐ PABIO 800
- ☐ Finish any outstanding electives
- ☐ PABIO 580

General Exam Checklist

Before beginning the General Exam process, please be sure to familiarize yourself with the UW Graduate School's Doctoral Degree Policies (<https://grad.uw.edu/policies/1-1-graduate-degree-requirements/>). You are responsible for knowing this information.

DURING AUTUMN QUARTER OF YOUR SECOND YEAR

☐ **Form your Doctoral Supervisory Committee.**

The committee must have a minimum of four members, including:

- Faculty advisor (Chair)
- Two members (two committee members must be Pathobiology faculty)
- Graduate School Representative (GSR)
 - Please note that only one of the committee members is permitted to not be appointed as Graduate School Faculty.

To set up your Doctoral Supervisory Committee, email the Program Director and Program Manager the following:

- The name(s) of your faculty advisor or co-advisors.
- The names of at least two faculty who have agreed to be on your committee.
- The name of the GSR who has agreed to be on your committee.
 - See the Graduate School's GSR Eligibility Information (<https://grad.uw.edu/policies/graduate-school-representative-gsr-eligibility/>) if you have questions concerning who can serve as your GSR.

AT LEAST THREE MONTHS BEFORE YOUR GENERAL EXAM

☐ **Set the General Exam date with your Supervisory Committee.**

At least four members of your committee must be present at the exam. These members must include the Chair, GSR, and at least two additional Graduate Faculty members. However, it is recommended you have a committee of five total members.

AT LEAST THREE WEEKS BEFORE YOUR GENERAL EXAM

☐ **Schedule your General Exam online via MyGrad.**

If your exam will not be held on the UW main campus, Fred Hutch, or at Seattle Children's Research Institute, you will need to include the full address and room number of the venue. When the exam is approved, you will be notified that your Committee Signature Form is available. The Committee Signature Form is sent electronically to both you and your advisor. Please remember to print it out and bring to your General Exam.

AT LEAST TWO WEEKS BEFORE YOUR GENERAL EXAM

☐ **Submit your dissertation research proposal to exam committee members and the Program Manager.**

AT LEAST ONE DAY BEFORE YOUR GENERAL EXAM

- ☐ **Print out the Committee Signature Form for your exam.**
Make sure to bring it with you to your exam.

AFTER YOUR GENERAL EXAM

- ☐ **Return the signed Committee Signature Form to the Program Manager.**
Within three days or no later than the last day of the quarter, whichever is first. The Program Manager will officially report the outcome of your exam to the Graduate School. Upon successful completion of your General Exam, the Program Manager will also send an announcement to the Pabio listserv unless a special request is made.

Dissertation Defense Checklist

Before beginning the Final Exam process, please be sure to familiarize yourself with the UW Graduate School's Doctoral Degree Policies (<https://grad.uw.edu/policies/1-1-graduate-degree-requirements/>). You are responsible for knowing this information.

SHOULD ALREADY BE DONE

☐ **Complete requirements for degree.**

☐ **3.0 minimum cumulative GPA.**

☐ **Set up your Doctoral Supervisory Committee.**

The committee must have a minimum of four members, including:

- Faculty advisor (Chair)
- Two members (two committee members must be Pathobiology faculty)
- Graduate School Representative (GSR)

If your committee membership has changed since it was set up, please make sure to inform the Program Manager.

☐ **Have a formal committee meeting.**

Each member must be in agreement that you should proceed with writing your dissertation. The full Supervisory Committee must then formally agree to the date and time of your exam before you schedule your Final Exam online.

☐ **Committee report signed by all members.**

The report must detail in writing that the members are in agreement about the timing of the dissertation defense.

AT LEAST THREE MONTHS BEFORE YOUR FINAL EXAM

☐ **Set the Final Exam date with your Supervisory Committee.**

At least four members must be present at your Final Exam. These include the Chair, Graduate School Representative, and one additional Graduate Faculty member.

☐ **Establish the Reading Committee.**

The Reading Committee must have a minimum of three members, consisting of:

- Faculty advisor (Chair)
- Two other Supervisory Committee members

Email this information to the Program Manager to get this set up.

AT LEAST FIVE WEEKS BEFORE YOUR FINAL EXAM

☐ **Present your Reading Committee with your dissertation.**

Your Reading Committee must agree that the work described in the dissertation is appropriate for fulfillment of the doctoral degree and that the dissertation is in good enough shape that you will be able to make the necessary changes prior to the end of the quarter.

☐ **Schedule your Final Exam.**

This includes finding a room, confirming with your committee they are available, and submitting a request for your Final Exam in MyGrad (<http://grad.uw.edu/for-students-and-post-docs/mygrad-program>).

AT LEAST ONE DAY BEFORE YOUR FINAL EXAM

☐ **Print out the exam Committee Signature Form and bring it to your Final Exam.**

Once the Program Manager has received confirmation of your Supervisory Committee approval, they will approve the request for your Final Exam online (a system generated email will be sent to the student and all members of the committee) and email the Committee Signature Form to the student and their advisor.

WITHIN THREE DAYS OF COMPLETING THE EXAM

☐ **Return the signed Committee Signature Form to the Program Manager within three days or by the end of the quarter, whichever is first.**

The Program Manager will officially report the outcome of your exam to the Graduate School. Your Committee Signature Form must be returned to the Program Manager. You will also submit via email attachments, the abstract of your Dissertation Defense and publications. Upon successful completion of your Dissertation Defense, the Program Manager will also send an announcement to the Pabio listserv unless a special request has been made.

Appendix H

Doctoral Dissertation Checklist

Review the Graduate School dissertation submission policies carefully before preparing your final dissertation document: <https://grad.uw.edu/for-students-and-post-docs/thesisdissertation/>.

- ☐ **Doctoral Dissertation Reading Committee Approval Process.**
All Reading Committee members can approve the dissertation after the student's final exam has been scheduled by logging into <https://grad.uw.edu/for-faculty-and-staff/mygrad-faculty-view/>,
- ☐ **Complete the Survey of Earned Doctorates (SED)**
Upload the SED Certificate of Completion to the Administrative documents section of the UW ETD Administrator Site.
- ☐ **Submit your final dissertation electronically to the UW ETD Administrator Site.**
Deadline is the last day of the quarter of graduation.

Appendix I

Graduation Checklist

- ☐ **Department of Global Health Graduation Reception**
The Department of Global Health holds a special reception during finals week each Spring Quarter to individually recognize graduates. Highlights include student speakers and hooding ceremony for PhD recipients.
- ☐ **School of Public Health Graduation**
The School of Public Health Graduation Celebration (<https://sph.washington.edu/graduation>) is held during finals week each Spring Quarter and recognizes undergraduate and graduate degree recipients.
- ☐ **University of Washington Commencement**
The annual UW Commencement Ceremony (<http://www.washington.edu/graduation>) is held the Saturday following finals week of Spring Quarter. The event includes bachelor, master, doctoral, and professional degree students. An estimated 5,000 graduates and 40,000 guests participate. Graduates who earned their degrees the Summer, Autumn, and Winter prior to the Commencement are eligible to participate. Candidates who have a reasonable expectation of graduating the Spring or Summer Quarter directly preceding and following the Commencement Ceremony are also eligible to participate.

Appendix J

Mentor Resources and Tips

Compact between Biomedical Graduate Students and Their Research Advisors: This is a good document to use for a discussion about expectations between you and your mentor.

<https://www.aamc.org/initiatives/research/gradcompact/>

Mentoring Guide for Students and Faculty: Two guides written by the Graduate School to use in setting up a mentoring relationship.

<https://grad.uw.edu/advice/mentoring-2-0-finding-and-working-with-faculty-mentors/>

Mentor memos from the Graduate School: There are some memos about approaching new mentors and how to set up successful mentoring relationships.

<https://grad.uw.edu/advice/working-with-mentors-to-support-your-career-goals/>

***Nature's* guide for mentors:** This is a great article about mentoring.

<http://www.nature.com/nature/journal/v447/n7146/full/447791a.html>

