

Department of Biology Graduate Student Guidelines

Adopted by Biology faculty vote June 2009, as amended

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Preamble

The Department of Biology considers graduate research, teaching, and mentoring to be among its most important missions. It is in the mutual interest of graduate students and faculty that an advanced degree from the department be recognized worldwide as evidence of outstanding scholarship and creativity. These guidelines are intended to aid graduate students and their Supervisory Committees in crafting a program of graduate study that allows each student to acquire and demonstrate research competence, communication skills, breadth of knowledge, and teaching ability.

This document summarizes the procedures, policies, and requirements for advanced degrees in the department, in addition to the procedures, policies, and requirements set forth by the University of Washington Graduate School (<http://www.grad.washington.edu/students/index.shtml>).

These guidelines have been prepared as a reference for graduate students, and for the faculty who serve on their Supervisory Committees. The guidelines define the minimum criteria for successful completion of advanced degrees within the department, but individual Supervisory Committees may impose additional requirements as appropriate. A student may petition the Graduate Program Committee for amendment or removal of any requirement in these guidelines.

Requirements for the Ph.D. degree in Biology

Outline. Each of the items enumerated below is explained in more detail in subsequent sections of this document, but a summary of departmental requirements is presented here for quick reference by faculty and students.

1. Satisfy UW Graduate School requirements for enrollment, residence, scholarship, examination, and other relevant policies
<<http://www.grad.washington.edu/students/index.shtml>>.
2. Have or obtain an academic background equivalent to that required of students receiving a B.S. degree from the department. Assessment of background and requirements for any remedial work will be made in the

student's meeting with a Temporary Guiding Committee just prior to the beginning of Autumn Quarter classes in the student's first year of residence.

3. Request appointment of a Supervisory Committee, no later than Autumn Quarter of the second year in residence.
4. Meet at least once annually with the Supervisory Committee.
5. Take the General Exam, no later than Spring Quarter of the second year in residence. This General Exam includes a formal written proposal outlining research plans, which is sent to all members of the Supervisory Committee for written comments prior to the oral exam.
6. Hold an appointment as a teaching assistant (TA) for at least three quarters while in residence.
7. Request appointment of a Dissertation Reading Committee at the beginning of the quarter of the anticipated graduation.
8. Successfully defend the doctoral dissertation at the Final Examination.
9. Obtain the signatures of all members of the dissertation Reading Committee on the cover page of the dissertation prior to submitting the dissertation to the Graduate School.

Academic Background and Preparation for the Ph.D. Program. In the two-week period just prior to registration for Autumn Quarter classes in the student's first year, the student will meet with a Temporary Guiding Committee consisting of the student's temporary advisor (a faculty member in the student's area of research interest, chosen by the student or appointed by the department Chair), the Graduate Program Coordinator or other faculty member on the Graduate Program Committee, and a graduate student member of the Graduate Program Committee. The purposes of this meeting are to:

- welcome the student to the department,
- answer any questions the student may have,
- provide information about opportunities for coursework and research,
- assess the student's academic background compared with that expected of recipients of the B.S. degree from our department,

- develop a list of required actions to correct any perceived deficiencies in background, and
- recommend courses likely to be of value to the student in the first year or two of study.

If the Temporary Guiding Committee determines that the student needs to correct one or more academic deficiencies to prepare for graduate study, the Graduate Program Coordinator will send the student a prescription letter consisting of required coursework, TA assignment, or other suitable task chosen to allow the student to develop proficiency in the area targeted for remedial work. A copy of the prescription letter will be sent to the temporary advisor, and a second copy will be placed in the student's file. The student and the Supervisory Committee are responsible for verifying that requirements in the prescription letter have been met prior to scheduling the General Examination.

Appointment of the Supervisory Committee. The appointment of a doctoral Supervisory Committee indicates that the graduate faculty in the department find the student's background and achievement a sufficient basis for admission into a program of doctoral study and research. The purposes of the Supervisory Committee are to:

- provide guidance and support during the graduate student's career,
- approve a course of study and research appropriate for the student's chosen field,
- conduct and evaluate the research proposal, General Exam, and Final Exam, and
- represent the entire departmental faculty in maintaining high standards of scholarship in the graduate program.

The members of the Supervisory Committee will include at least three faculty members within the department (regular, research, emeritus, acting, joint, adjunct, or affiliate appointments). The Chair of the Supervisory Committee must hold a faculty appointment in the Department of Biology. At least two of these members, including the committee Chair, must be members of the graduate faculty with an endorsement to chair doctoral committees. At least half of the members must hold regular faculty appointments in the Department of Biology, and a majority of the members must be members of the graduate faculty.

An additional member, the Graduate School Representative (GSR), is chosen by the student in consultation with the Chair of the Supervisory Committee. The GSR must be a member of the Graduate Faculty with an endorsement to Chair. The GSR represents the broad concerns of the Graduate School with respect to high standards of scholarly performance, ensuring that the student's mastery of the subject matter is broad and comprehensive. The GSR must have no conflict of interest (such as budgetary relationships, primary or joint appointments) with the department, student, or the Supervisory Committee Chair. The GSR must attest to the validity of examinations and indicate approval of the process by which examinations were conducted. This is done by signing the warrant and by submitting a standardized report on the examination process to the Dean of the Graduate School.

The student should file a request to appoint the Supervisory Committee with the Graduate Program Manager, no later than Autumn Quarter of the second year in residence. The Graduate Program Manager will forward the request to the Graduate School. The Graduate School will review the request and, if approved, will appoint all members of the Supervisory Committee. Graduate School policies and procedures governing faculty and student responsibilities pertaining to the Supervisory Committee may be found in Graduate School Memorandum No. 13: <<http://www.grad.washington.edu/stsv/doccommroles.htm>>.

Annual Supervisory Committee Meeting. The purposes of the annual Supervisory Committee meeting are to:

- review and formally evaluate the student's progress towards the advanced degree,
- determine any requirements above and beyond those enumerated by the department or the Graduate School guidelines,
- give the student an opportunity to make written and oral presentations of research progress, and
- provide a forum for the exchange of ideas surrounding the student's research.

At least once each academic year, the student will meet with the Supervisory Committee. The committee Chair and at least two other committee members (not counting the GSR) must be in attendance. At least one week prior to the meeting, the student will provide all committee members with a written report following the format given in the Graduate Student Annual Report form.

At the conclusion of the meeting, the Chair of the Supervisory Committee will prepare a Supervisory Committee Annual Report form assessing the student's accomplishments and plans, and detailing any additional requirements. This report will be signed by the student and the attending committee members, then submitted with the student's annual report to the Graduate Program Manager. These reports will be used in the yearly assessment of academic progress of the student. Should the student or any committee member wish to dissent with the majority opinion expressed in the Supervisory Committee Annual Report, the written dissent should be signed, dated, given to the Graduate Program Manager, and attached to the annual report in the student's file.

Research Proposal and General Examination. Successful completion of the General Examination makes the student a candidate for the Ph.D. degree. The purposes of the General Exam are to:

- assess the student's ability to craft and defend a written research proposal, complete with the background and significance of the proposed work and a detailed description of planned experiments and data analysis,
- provide written and oral feedback from the Supervisory Committee to the student on research direction and academic preparation for the Ph.D. degree,
- test the student's breadth of knowledge in biology, as defined in discussion with the Supervisory Committee,
- assure that the student is prepared to pursue the Ph.D. degree, and
- give the student an opportunity to demonstrate written and oral communication skills.

The General Exam should be taken no later than Spring Quarter of the second year in residence. The General Exam is conducted by the Supervisory Committee, and will be chaired by a member (but not the Chair) of the Supervisory Committee who holds a regular faculty appointment in the department. The General Exam chair will be appointed by the Graduate Program Coordinator. At least four members of the Supervisory Committee (including the Chair, Graduate School Representative, and one additional graduate faculty member) must be present at the General Exam.

The student will convene a Supervisory Committee meeting for the Autumn Quarter of the second year in residence, with the purposes of scheduling the General Exam and discussing the faculty expectations for the student at the General Exam. The student will make available to the committee members a 1-

page Pre-General Exam Report for their comments. Following this meeting, the student will prepare a 1-page (maximum) summary of the meeting, including the date of the General Exam and the faculty expectations, and circulate this document to all committee members for approval. Any discrepancies in expectations identified by committee members will be communicated to the student and her/his advisor immediately. The approved document will be sent by the student to the Graduate Program Coordinator and placed in the student's file.

The student will prepare a research proposal in a standard format appropriate for the student's discipline (e.g., NSF Graduate Research Fellowship, NSF Doctoral Dissertation Improvement Grant, EPA STAR Fellowship, NIH F31 Ruth Kirschstein NRSA Predoctoral Fellowship, MCB Training Grant, Developmental Biology Training Grant, Neurobiology Training Grant). It is important that the proposal describe the conceptual background and broad significance of the proposed research, as well as the details of proposed experiments and data analysis. The proposal must be sent to all members of the Supervisory Committee at least three weeks in advance of the General Exam. At least two weeks prior to the exam, the members of the Supervisory Committee will provide the student with written comments on the proposal (copied to the Chair(s) of the student's Supervisory Committee), as though they were providing formal reviews of the proposal for the funding agency.

Barring significant flaws at the proposal stage, the General Exam will proceed to an oral exam, not to exceed three hours in length. The typical exam format will include a 20-30 minute presentation of the research proposal by the student, with questions from the committee during the presentation as desired by the committee. Following the student's presentation, the committee will question the student further. The nature, scope, and content of the questions are entirely up to the Supervisory Committee, but it is expected the questioning will include such topics as:

- the context of the proposed research in the larger framework of science,
- the conceptual and historical basis of the proposed research within its discipline(s),
- the details of experimental design and analysis, and
- any additional topics discussed at the General Exam planning meeting.

At the beginning of the General Exam, the student will make available to all members of the committee a copy of the Supervisory Committee General Exam

Report form, so that committee members may write comments or suggestions for the student during the exam. The forms may be given to the student at the conclusion of the exam or at a later date. The committee will deliberate on the outcome of the exam with the student not present. Following the committee's deliberations (immediately or at a later date), the committee may wish to have a brief discussion with the student about the student's performance on the exam, referring to the notes taken during the exam.

Successful completion of the General Exam will be determined by an affirmative vote from a majority of the members of the committee in attendance at the General Exam. Any member in the minority is invited to submit a written minority report, copies of which will be sent to the student, the Chair of the Supervisory Committee, the Dean of the Graduate School, and the Graduate Program Manager, who will place a copy in the student's file.

In the event that the student does not successfully complete the General Exam, the Supervisory Committee may, at the discretion of a majority of the members in attendance, request from the Graduate School one re-examination, to be given in the following academic quarter.

Graduate School policies and procedures governing the General Exam may be found at: <<http://www.grad.washington.edu/stsv/doctoralinfo.htm>>. These include requirements about the total number of credits (60) and graded 400- or 500-level credits (18) taken in residence prior to, or in the quarter of, the exam.

Teaching Assistantship Service. The purposes of teaching assistantship (TA) service are to:

- allow graduate students to develop professional teaching skills in preparation for potential careers in academia,
- contribute to the undergraduate teaching mission of the department, and
- provide financial support for graduate students.

Graduate students are expected to become comfortable with, and proficient at, teaching undergraduates at all levels from introductory courses (100-200) to mid-level core courses (300) to specialized upper division courses (400). All graduate students are required to hold a regular TA appointment for three quarters while in residence. Every attempt should be made to gain TA experiences at all levels within the undergraduate curriculum.

The Doctoral Dissertation and Final Examination. The purposes of the doctoral dissertation and Final Examination are to:

- verify that the student has completed scholarly work of sufficient originality, depth, and breadth to merit a Ph.D. degree in Biology,
- provide the opportunity for the student to place his/her work in a larger scientific context, and
- improve the student's oral and written communication skills.

It is the student's responsibility to be aware of the formal structure, rules, and timelines for the dissertation and the Final Exam. Instructions for the preparation of the dissertation and the scheduling of the Final Exam may be obtained from the Graduate School

<<http://www.grad.washington.edu/stsv/doctoralinfo.htm>>.

Since the Request for Final Examination may not be filed with the Graduate School until all members of the Supervisory Committee (including the dissertation Reading Committee, see below) agree that the student is properly prepared, it is imperative that a complete draft of the dissertation be available at or near the beginning of the quarter in which the student expects to take the Final Exam.

By the beginning of the quarter in which the student anticipates completion of the Ph.D. degree, the student will provide the Graduate Program Manager with the names of at least three members of the Supervisory Committee, including the Chair, who have agreed to act as a Reading Committee for the doctoral dissertation. The Graduate Program Manager will transmit the request to the Dean of the Graduate School, who then will appoint the Reading Committee. It is the responsibility of the Reading Committee to ensure that the dissertation is a significant contribution to knowledge and is an acceptable piece of scholarly writing, determine the appropriateness of a candidate's dissertation as a basis for issuing a warrant for a Final Examination, approve a candidate's dissertation, and sign two original Signature Pages that are placed within the dissertation after all revisions are completed.

In order for the dissertation to be evaluated properly, and so that the student may have sufficient time to respond to comments, the following guidelines for minimum time requirements are recommended. At least four weeks before the proposed Final Examination, the members of the Reading Committee should receive a complete draft of the dissertation. Within one week of receiving the

dissertation draft, the Reading Committee will evaluate the dissertation, confer, and determine whether the Request for Final Examination should be submitted to the Graduate School. If so, the student will provide the remainder of the Supervisory Committee with the current or revised draft of the dissertation at least two weeks before the Final Examination. The student should expect to receive substantive responses no later than one week before the examination.

At least four members of the Supervisory Committee (including the Chair, GSR, and one additional graduate faculty member) must be present at the Final Examination. The Final Exam usually is devoted to the subject of the dissertation and associated topics. The format of the exam is a public seminar (*ca.* 50 minutes, with an additional 10 minutes for questions from the audience), which covers the content of the dissertation, followed with a period of questioning by the Supervisory Committee and other members of the graduate faculty. Total time for the Final Exam will not exceed two hours.

Successful completion of the Final Exam will be determined by an affirmative vote from a majority of the members of the Supervisory Committee in attendance. The signed warrant must be returned to the Graduate School by the last day of the quarter. Any member in the minority is invited to submit a written minority report, copies of which will be sent to the student, the Chair of the Supervisory Committee, the Dean of the Graduate School, and the Graduate Program Manager, who will place a copy in the student's file.

In the event that the student does not successfully complete the Final Exam, the Supervisory Committee may, at the discretion of a majority of the members in attendance, request from the Graduate School one re-examination, to be given in the following academic quarter.

The Doctoral Dissertation Signature Pages. Guidelines for Dissertations are available on the Graduate School website

<http://www.grad.washington.edu/stsv/etd/chklst.htm>. **The Graduate School requires both a title page and separate signature page, listing only the Chair of the committee and names of the Reading Committee.** The Reading Committee members may sign the signature page of the dissertation at the time of the Final Examination, provided that the dissertation is essentially complete. The Chair of the Supervisory Committee should not sign the signature page until the dissertation is in its final form. Any member of the Reading Committee who so desires may refrain from signing until the dissertation is complete.

Requirements for the M.S. degree in Biology

The Department of Biology procedures, policies, and requirements for the M.S. in Biology follow the University of Washington Graduate School guidelines <<http://www.grad.washington.edu/stsv/mastersinfo.htm>> except as listed below.

Appointment of the Supervisory Committee will follow the same guidelines as for the Ph.D. degree, except that no Graduate School Representative is appointed.

Annual meetings of the Supervisory Committee will be held following the same guidelines as for the Ph.D. degree.

Students seeking a thesis Master's degree will make a public oral presentation of their research as part of the Final Examination.

Unsatisfactory progress

Criteria for evaluation. The following criteria will be used to determine whether progress towards the advanced degree is satisfactory:

- cumulative and quarterly GPAs computed on those courses taken while the student is enrolled in the University of Washington Graduate School,
- fulfillment of degree program requirements,
- performance during informal coursework and seminars,
- professional and ethical conduct of research, and
- research capability, progress, and achievements.

Responsibility for, and timing of, determination of student progress. The members of the Supervisory Committee and the departmental graduate faculty as a whole are charged with determining whether or not the student is making satisfactory progress towards the advanced degree. Progress will be evaluated at the annual meeting of the Supervisory Committee, at the annual faculty meeting devoted to a review of graduate student progress, and at any other times deemed necessary by the Chair of the Supervisory Committee or the Graduate Program Coordinator. If a majority of the committee members, or a majority of the graduate faculty in the department, find that the student's progress is unsatisfactory, procedures detailed in Graduate School Memorandum No. 16,

Continuation or Termination of Students in the Graduate School <<http://www.grad.washington.edu/Acad/gsmemos/gsmemo16.htm>> will be followed. In the event of a conflict between the recommendation of the Supervisory Committee and the graduate faculty as a whole, the recommendation of the graduate faculty will be followed.

For students who have not yet been assigned a Supervisory Committee, the temporary advisor (Chair) and the faculty members of the Graduate Program Committee will serve as a temporary Supervisory Committee for purposes of determining progress towards the advanced degree.

Recommendation of action. The Supervisory Committee or departmental graduate faculty as a whole will determine, by majority vote, what action is to be recommended as a consequence of the student's unsatisfactory progress (see below for a list of possible actions). This recommendation must be communicated, in writing, from the Chair of the Supervisory Committee or the Chair of the Department to the Graduate Program Coordinator within one week of the committee or faculty meeting. The Graduate Program Coordinator will then make a recommendation to the Dean of the Graduate School, and will notify the student, in writing, of this recommendation.

Restoring the student to good standing. The Supervisory Committee or the departmental graduate faculty as a whole will determine, by majority vote, what tasks the student must complete in order to restore good academic standing, and will set deadlines for the completion of these tasks. It is expected that the assigned tasks will be developed in a collegial discussion among the committee members and the student, with the goal of helping the student formulate a clear plan for progress towards completion of the advanced degree. The assigned tasks will be detailed in a letter from the Chair of the Supervisory Committee to the student, with a copy sent to the Graduate Program Manager for placement in the student's file.

Actions that may be recommended by the Supervisory Committee, the departmental graduate faculty as a whole, and the Graduate Program Coordinator in cases of unsatisfactory progress:

No Action

- May be recommended for those students whose cumulative GPA is above 3.0 but whose most recent quarter's work is below 3.0, if the

review has determined that this condition is not cause for immediate concern.

Warn

- May be recommended for those students whose cumulative GPA has dropped slightly below 3.0.
- May be recommended for those students who have failed to meet expectations for performance and progress as determined by the graduate program.
- “Warn” status will be in place for one quarter. The Supervisory Committee will meet to review the student’s progress in the academic quarter following a recommendation of “warn”.

Probation

- May be recommended for those students who have not corrected the deficiency which caused the “warn” action within the time limit specified by the graduate program.
- May be recommended for those students who depart suddenly and substantially from scholarly achievement as defined by the graduate program. A previous “warn” recommendation is not necessary.
- “Probation” status will be for one quarter. The Supervisory Committee will meet to review the student’s progress in the academic quarter following a recommendation of “probation”.
- The Department may, at the discretion of the Chair, not award a TA position to a student who has been on “probation” status within the past two quarters.

Final Probation

- May be recommended for those students who have not corrected the condition(s) that caused the probation recommendation within the time limit specified by the graduate program.
- May be recommended for those students who fail to progress toward completion of the graduate program.
- “Final probation” status will be for one quarter. The Supervisory Committee will meet to review the student’s progress at the beginning of the quarter (including summer quarter) following a

recommendation of “final probation”, and will recommend a change of status to “probation” or “drop”.

- The Department may, at the discretion of the Chair, not award a TA position to a student who has been on “final probation” status within the past two quarters.

Drop

- Final action to be recommended. A drop recommendation means immediate drop from the University of Washington. Therefore, this recommendation must be received in the Graduate School soon after the beginning of the quarter following the quarter on which the decision is based.

Appeals. If the student believes that the Graduate Program Coordinator’s recommendation to the Dean of the Graduate School is unjustified, or if the student feels that one or more of the assigned tasks to restore good academic standing are inappropriate, the student should appeal these decisions to the Chair of the Department. Appeals beyond this point should follow the process outlined in Graduate School Memorandum No. 33, Academic Grievance Procedure <<http://www.grad.washington.edu/Acad/gsmemos/gsmemo33.htm>>.

Resolving conflicts between students and advisors

Though conflicts between students and their advisors are uncommon, the Department takes them seriously because of the inherent power asymmetry between a student and a faculty member. If a good faith effort to resolve the conflict between the student and advisor is not successful, the student should seek advice from the members of the Supervisory Committee, including the Graduate School Representative. This group is likely to be most familiar with the student’s research, and with the relationship between the student and the advisor.

If consulting with the Supervisory Committee does not produce a resolution of the conflict, or if the student perceives that all members of the Supervisory Committee will have a conflict of interest that prevents the student from receiving a fair hearing, the matter should be brought to the attention of the

Graduate Program Coordinator. The Graduate Program Coordinator serves as the faculty advocate for graduate student concerns, and all student conversations with the Graduate Program Coordinator are held in strict confidence.

If the Graduate Program Coordinator cannot resolve the conflict, the student should ask the Department Chair for assistance. Appeals beyond this point should follow the process outlined in Graduate School Memorandum No. 33, Academic Grievance Procedure

<<http://www.grad.washington.edu/Acad/gsmemos/gsmemo33.htm>>.