



GRADUATE STUDENT HANDBOOK

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1.0 INTRODUCTION

The School of Biological Sciences (SBS) at Washington State University (WSU) offers graduate programs leading to the MS and PhD degrees. Our graduate programs are an important part of the overall research program in plant and animal sciences at WSU. The state-of-the-art school and campus facilities and the collegial atmosphere of SBS and the university provide an ideal setting for the dedicated student to obtain interdisciplinary training in modern science, as well as mastery of his or her own specialty. The school provides students with opportunities and support to work closely with leaders of their areas in both laboratory and field settings. This handbook is designed to acquaint students with the **two** sets of regulations and procedures that will guide them to their graduate degrees:

- the university-wide policies of the **Graduate School** and
- the departmental policies of the **School of Biological Sciences**. Failure to adhere to these regulations and to observe the degree requirements inevitably results in complications and could delay completion of the degree.

Faculty within SBS value graduate study as a period of academic growth and professional development. We facilitate and encourage students to obtain a broad working knowledge of their chosen areas. We wish you every success with your graduate program and in your future career.

2.0 NEW STUDENT INFORMATION

2.1 ORIENTATION

The Associate Director for Graduate Studies of the School of Biological Sciences will facilitate an orientation event for new students during the week before their first semester begins. During this orientation, students will review school and university regulations, begin a course in teaching training, receive training in lab and course safety and become familiar with faculty research programs, the School's facilities, staff and expectations of their graduate program. During this time, the Associate Director will also meet each new student as needed to discuss degree requirements including any prerequisites or undergraduate deficiencies, transfer credits from previous MS degrees, graduate seminars, and special topics course requirements, and to answer any questions new students

2.2 OFFICE AND DESKS

The School of Biological Sciences will provide desk and office space for all graduate students in the school, as long as space is available. Contact the Associate Director for your assignment. Please note that moving among offices can only be done with permission of the Associate Director.

2.3 KEYS

The Principle Assistant in the main SBS office will issue keys. To receive keys you will be required to sign an agreement that states that you will obey all WSU rules regarding keys. There is no charge for keys; however, you may be subject to costs of key replacement and rekeying if you lose or fail to return the keys when you leave. Please assume responsibility for locking all office, classroom, and laboratory doors.

2.4 BUILDING PASS

Graduate students are required to have a valid student identification card in their possession during hours when the buildings are closed and to present your card to security personnel upon request. Student ID cards may be obtained from the

[Cougar Card Center](#) in the bottom floor of the CUB or by calling 509-335-CARD (2273).

2.5 MAIL

Students will be assigned a mailbox in Abelson 320. Mail sent from and received at the University should only be official correspondence. Personal mail should be delivered to private residences. Business correspondence can be left in the SBS main office for mailing. Letters should not be stamped and must have the return address of the school with the +4 zip code (4236).

2.6 TELEPHONES AND FAX

Telephones are available for local calls. Graduate students should work with their advisors in case of a need for work-related long-distance calls. Personal long-distance telephone calls are prohibited. For long-distance faxes, you will need a long-distance access code. Please see the Finance Manager for additional information.

2.7 COMPUTER USE

A WSU network account, including an email address, is opened for all graduate students upon admission. Roving IP addresses are also available through IT for connecting laptop computers to the internet. Official WSU correspondence should only be sent from, or to @wsu.edu email addresses.

Students have access to facilities in the Science Learning Instructional Center (SLIC, Abelson 227). Computers in SLIC are situated in three laboratories and students are free to use these computers when the laboratories are not reserved for classes. Computers are also available for graduate student use in Abelson 324. In addition, laptop computers and projectors for presentations; scanners; digital topographical maps for Idaho, Oregon, and Washington; and limited amounts of software are available through the School of Biological Sciences. A sign out sheet for computers and projectors is located in Abelson 301. For other equipment and software, students should check with faculty or staff concerning their availability.

2.8 PHOTOCOPYING

There are three copiers available to SBS graduate students. Two of these are in Abelson 324 and one in Abelson 301. You will be assigned a copier code (usually the first 4 digits of your Social Security #) to be used for your educational endeavors. Copies will be charged (@ \$0.03/copy) against your annual graduate allocation (which varies from year to year; contact your advisor for the current limit). There is a separate copier code for copying related to your TA responsibilities. Please see the Finance Office for the appropriate code.

2.9 ACADEMIC COORDINATOR

Your Academic Coordinator is available for assistance with university forms, grant and scholarship applications, and general questions. All graduate paperwork must be routed through the Academic Coordinator.

2.10 RESEARCH SUPPLIES

Students usually receive an annual allocation from the School for research-related costs (books are not allowed). Check with the finance office on availability of funds and to facilitate purchases.

3.0 SCHOOL OF BIOLOGICAL SCIENCES GUIDELINES

3.1 STUDENT APPOINTMENTS

To ensure that all necessary paperwork has been completed, all graduate students should report to the School main office in Abelson Hall 301 prior to August 16 (or January 1 for spring appointments); responsibilities related to assistantships formally begin on this date. Students on teaching assistantships (TA) are assigned teaching responsibilities within the School of Biological Sciences. Teaching assistantships are assigned by the Associate Director for Graduate Studies based on a combination of the student's expertise and the needs of the department. As much as possible, we try to match assignments to student and/ or faculty requests, but these are not guaranteed. Students receiving a TA should report to the Instructional Support Supervisor in Abelson 216 with a schedule of availability. All TA and RA appointments are either for the academic semester (8/16 to 12/31 or 1/1 to 5/15) or the academic year (8/16 to 5/15).

Students in a Master's degree program will receive a TA I (step 42) salary for the academic year (9 months) and Doctoral students with a Master's degree will receive a TA II (step 47) salary for the academic year. Doctoral students without a Master's degree will be paid at the lower rate (TA I) until they advance to PhD candidacy (i.e., after they complete their preliminary examination), and from then on, they will be paid at the higher rate (TA II).

Paychecks are mailed on the 10th and 25th of the month and cannot be forwarded. It is recommended that students sign up for direct deposit, which can be done through the finance office. To report changes of address, go online to [MyWSU](#).

The maximum time for guaranteed financial support under graduate appointments is two years for a Master's student, five years for a Doctoral student who possesses a Master's degree, and six years for a Doctoral student admitted without a Master's degree. In extenuating circumstances, the graduate student's advisor may submit a request, using the procedures outlined in the [SBS policy on extensions](#), to the Associate Director for Graduate Studies and the Graduate Programs Committee (GPC) for a one-semester extension of appointment as a "Temporary Teaching Assistant." Each case will be evaluated individually considering the student's record and special circumstances of the

request. Extension requests are dealt with one semester at a time. Requests for an extension of appointment beyond one year need to be brought to the faculty by the student's advisor. In general, priority of extension requests will be as follows: PhD students enrolled in a SBS degree, MS students enrolled in a SBS degree, MPS students under the guidance of an SBS advisor. First extensions have priority over second extensions, and so on.

IMPORTANT: SBS extensions are *separate* from the Graduate School's extensions and are handled differently. Note in particular that a PhD student has 6 semesters to graduate after passing their qualifying exam per Graduate School policy. Thus, for example, a PhD student who enters the program without a MS degree and passes their qualifying exam during their second year of study would not need an extension of TA support to continue into their (guaranteed) 6th year of support from SBS, but *would need an extension* from the Graduate School. More details on Graduate School extensions can be found in the Graduate School Policies and Procedures manual located here: <https://gradschool.wsu.edu/chapter-six-f/>

Graduate students on appointment enter into an agreement with the University that both parties are expected to honor. University policy requires graduate appointees to work 20 hours per week and to be at work each workday, including periods when the University is not in session with the exception of legal holidays (see [WSU Holidays](#)). To maintain an assistantship, a student must be enrolled in a minimum of 10 credits for the entire semester. With satisfactory performance and the availability of funds, the school will continue to provide the student with financial support.

3.1 a Summer Teaching Assistantships

To apply for summer teaching assistantships, a student must provide the Academic Coordinator with a letter from their advisor that states they have no other means of summer support. Applications will be ranked based on the following criteria (in decreasing order of importance):

1. TA experience in one or more of summer courses offered;
2. prior TA evaluation scores;
3. a demonstrated lack of prior summer TA support;
4. degree sought; PhD students will have priority over MS students;
5. whether a student is progressing on time to complete his or her degree (students on extensions are not eligible);
6. whether the student has submitted all relevant paperwork to the graduate school based on time in residence.

3.2 RESIDENCY

Students with at least half-time appointments as research or teaching assistants may qualify for a waiver of tuition by establishing residency in Washington State. Information and the application form are [available online here](#). The deadline for submission of the questionnaire and documentation is the **30th calendar day** of the third semester. However, it is to your advantage to submit your file prior to the beginning of the semester to be considered for a change of residence status by the tuition due date. Allow 3–4 weeks review time. After reading the requirements, students should discuss any questions regarding their residency with the Graduate School. Failure to promptly establish residency places the non-resident tuition waiver in jeopardy and may subject the student to full non-resident fees.

3.3 HANDLING CLASSROOM DISTURBANCES

The College of Arts and Sciences recommends the following guidelines to teaching assistants on handling classroom disruptions:

Instructors must be prepared to handle the unexpected. One unpleasant task that confronts all instructors at some time is handling a disruptive student. Each instructor has his or her own personal approach to such problems, but a few guidelines are described here in an effort to provide some direction for teaching assistants.

1. Since classroom disruptions come in many sizes and forms, no general policies can be applied to every situation. The cardinal rule, however, is for the instructor to remain as calm as the situation warrants. The instructor should remember that he/she is serving as a University official, and thus has authority supported by the State of Washington Administrative Code.
2. Most disruptions can be handled within class. Most students will not repeat disruptive behavior if it is pointed out to them. The instructor's personal style will determine the approach to be taken in informing the student of the inappropriate behavior and of the admonition to cease and desist.

seminars (Mondays from 4:10-5 PM; attendance of a minimum of 10 seminars per semester is required for a S grade). MS students may waive this requirement for one semester during their degree program. Thesis MS students must **publicly present a seminar about ~~W&B~~ proposed research during their second semester** (can be during BioLunch). During this semester, the student must enroll into Bio 501 section 2.

During the semester they intend to graduate, MS students will also present a seminar to the school based on the student's thesis research while enrolled in two credits of **BIOLOGY 500, section 1**. Please note that BIOLOGY 500 should be added to the S/U portion of the Program of Study, NOT the graded section.

Generalized Timeline for thesis MS degree

Year 1 Fall: Enroll in coursework, assemble thesis committee, file program of study

Spring: continue coursework, begin research, present research proposal

Summer: continue research

Year 2 Fall: Complete coursework, complete data analysis

Spring: write and defend thesis, graduate

General MS Thesis Guidelines— It is generally expected that a MS thesis consists of at least two chapters: 1) an introduction that puts the work in a broader context and summarizes the main results; and, 2) a second chapter that is considered a publishable piece of work based on the student's original research conducted at WSU.

Biology Non-Thesis MS Degrees:

Graduate School Requirements—a minimum of 30 total credit hours are required; 26 of these credits must be graded, and a minimum of 17 hours must be at the 500-level. (See Graduate School [Policies and Procedures](https://gradschool.wsu.edu) at gradschool.wsu.edu .) Timelines and deadlines for the MS degree program can be found [here](#).

School of Biological Sciences Requirements—a minimum of 12 graded credits from the School of Biological Sciences (BIOLOGY) is required for the non-thesis degree program in Biology. The program must include course work from all 3 areas of the core curriculum (ecology, evolution, physiology) within the School of Biological Sciences. As part of the graded credits from the school, non-thesis MS students are expected to take one credit of advanced topics in biology seminar (BIOLOGY 589) and the teaching training course (BIOLOGY 585).

In the final semester, the student will arrange for his or her committee to hold a ballot meeting, scheduled through the Graduate School, to determine whether the student has satisfactorily met all the requirements of the program. Students must register for a minimum of 2 credits BIOLOGY 702 (non-thesis option) for the semester or summer during which the examination or balloting is scheduled. Non-thesis MS students are exempt from the general requirement to present a seminar to the school.

5.43 PhD Programs in the School of Biological Sciences

Graduate School Requirements—a minimum of 21 credits of 400- (maximum 6 credits) and 500-level graded course work is required for the degree (see *Graduate School Policies and Procedures* online at [Policies and Procedures](#)). Up to 50% of these credits may be transfer credits from another university (e.g., for students with a MS) under Graduate School regulations and approval of the student's thesis advisor. Timelines and deadlines for the PhD program can be found [here](#).

School of Biological Sciences Requirements—a minimum of 9 graded credits from the School of Biological Sciences (BIOLOGY) is required for the degree programs in Plant Biology and Biology. An additional 6 graded credits outside the student's main research area will satisfy a breadth requirement; appropriateness of these courses will be assessed by the student's thesis advisor and their advisory committee. As a part of the 9 graded BIOLOGY credits, PhD students are expected to take 2 credits of advanced topics in biology seminar (BIOLOGY 589), a grant writing course (BIOLOGY 582), and a graduate teaching in biology course (BIOLOGY 585). At the discretion of the Associate Director 582 or 589 may be waived if similar courses were taken at a previous institution. In addition, PhD students must enroll in **BIOLOGY 500 section 2**, which requires students to attend weekly SBS departmental seminars (Mondays from 4:10-5 PM; attendance of a minimum of 10 seminars per semester is required for a S grade). PhD students may waive this requirement for up to two semesters during their degree program.

PhD students must also enroll in **BIOLOGY 501 section 1** the semester they orally defend a research proposal before their thesis committee, and also enroll in **BIOLOGY 500, section 1**, the semester they present a seminar (usually during the semester they are to graduate) to the school based on their thesis research. Please note that BIOLOGY 500 (seminar presentation/ attendance)

and BIOLOGY 501 (proposal defense) should be added to the S/U portion of the Program of Study, **not** the graded credits section.

Generalized Timeline for PhD degree (5 years with MS, 6 years without)

Year 1	Fall:	coursework
	Spring:	continue coursework, assemble committee, file program of study
	Summer:	begin research project
Year 2	Fall:	continue coursework, continue research
	Spring:	complete coursework, take oral qualifying exam
Year 3	Fall:	complete proposal defense (enroll in Biol 501), apply for extramural funding, take courses as needed
	Spring:	continue research, take courses/ seminars as needed
Final Year:		complete research, write and defend thesis

General PhD Thesis Guidelines— It is generally expected that a PhD thesis consist of at least four chapters: 1) an introduction that puts the work in a broader context and summarizes the main results; and, 2) three additional chapters that are considered publishable pieces of work based on the student's original research conducted at WSU.

5.4.4 Recommended Courses

SBS courses

Click [here](#) for a list of BIOLOGY prefix graduate courses from the online WSU catalog

Statistics courses

Stat 511 – Statistical Methods for Graduate Researchers

Stat 512 – Analysis of Variance of Designed Experiments

Stat 514 – Nonparametric Statistics

Stat 530 – Applied Linear Models

Stat 535 – Regression Analysis

Other WSU courses

Soil_Sci 508 – Environmental Spatial Statistics

Soil_Sci 514 – Environmental Biophysics

Soil_Sci 531 – Soil Microbiology

Soil_Sci 568 – GIS Spatial Analysis

Anim_Sci 551 – Endocrine Physiology

Anim_Sci 558 – Molecular & Cellular Reproduction

MPS 525 – Plant Molecular Genetics

MBIOS 446 – Epidemiology
MBIOS 540 – Immunology
MBIOS 542 – General Virology
HORT 503 – Bioinformatics for Research (Fall, even years)

University of Idaho (these courses are cooperative – students may take them for WSU credit)

BIOLOGY 416 – Plant Diversity and Evolution
BIOLOGY 456 – Computer Skills for Biologists
WLF 552 – Ecological Modeling
WLF 544 – Large Mammal Ecology
WLF 545 – Wildlife Habitat Ecology
WLF 555 – Statistical Ecology
WLF 561 – Landscape Genetics
WLF 562 – Landscape Genetics Lab

5.4.5 Required Courses

BIOLOGY 582 – Professional Communication in Biology: Grant Writing
BIOLOGY 585 – Professional Development/ Training for College & Univ. Teaching
BIOLOGY 589 – Advanced Topics in Biology

5.4.6 Seminars and Attendance

All thesis-option graduate students must present their thesis research in a public seminar during the same semester they are registered for **BIOLOGY 500, section 1**, which is usually the last semester of a degree program. Support from various fellowships/scholarships/ traineeships should be acknowledged. Graduate students are expected to attend weekly departmental seminars (Mondays at 4:10 PM) as an important component of their graduate training and must enroll in **BIOLOGY 500 section 2** each semester to meet this requirement.

5.5 PRELIMINARY EXAMINATION & PROPOSAL DEFENSE FOR PHD STUDENTS

There will be two **oral examinations**. The student must pass both examinations to successfully complete a degree program within the school.

5.5.1 Preliminary Examination

The **first** examination is an oral **preliminary examination** required for advancement to PhD candidacy. While concentrating on the area of interest as defined by the student's research topic, no topic is excluded from the oral preliminary exam.

This examination will be formally administered through the Graduate School.

Preliminary examinations will be scheduled only for graduate students whose programs of study have been approved by the Graduate School, the Associate Director for Graduate Studies and their advisory committee, and only after most of the course work is completed (6 or fewer graded credits remaining to complete).

The Preliminary Examination must be taken no later than the end of the fourth semester for PhD students with an MS degree, and no later than the end of the sixth semester for PhD students without an MS degree .

Forms scheduling the preliminary examination may be [obtained online](#) and must be submitted at least 10 working days before the examination date.

Pass or failure of this examination will be guided by a rubric filled out by the graduate student's advisory committee (see [Appendix 3.4B](#)). Failure of the examination makes it uncertain whether the candidate is qualified for the PhD. If a candidate fails the preliminary examination, the examining committee may decide:

1. that the candidate is unqualified and should not continue for the PhD degree in the School of Biological Sciences at WSU; or
2. that the candidate may be qualified and should be allowed to retake the preliminary exam. The examination must be taken no earlier than three months after the first preliminary exam and no later than one year after the first exam. Failure of the second exam will result in dismissal from the SBS graduate program.

Although not required by SBS, a **written preliminary examination** may be given prior to the oral examination if requested by the student or the thesis committee. This is not the proposal defense described below but a general knowledge examination and would be based on questions solicited from the thesis committee. To help ensure consistency, the following requirements for written exams apply:

- a) The student must schedule a meeting with their advisory committee at least two months prior to the date of the written examination to discuss the exam format and committee expectations.
- b) The format of the written exam will be decided upon by the committee. The exam may be open or closed book. The committee may choose to assign a review paper, as long as its content does not overlap extensively with that of the dissertation proposal. A description of the agreed upon-format of the exam will be placed in the student's file.
 - i. In the case of closed or open book exams, the committee will inform the student of the general topic areas that should be studied prior to the exam. Questions from each committee should be given to the student's major advisor in advance and the advisor can request revisions of questions. The exam should occur over no longer than 5 consecutive business days and take no longer than 4 hours per committee member to answer questions.
 - ii. In the case of a review paper, the student will have at least two months to complete the review paper, which shall be formatted as a journal article manuscript.
- d) After the written exam, the student will consult with committee members as to his or her performance. If the student passes the exam, he/she will be required to take the oral qualifying exam within 30 days. If the student fails the exam, the student will be required to re-take the exam within 90 days.

5.5.2 Dissertation Proposal Defense

The **second** oral examination is an internal SBS requirement and will consist of an oral **proposal defense** of the student's dissertation project (see 5.6 below) Students are expected to complete this exam within one semester of their oral qualifying exam. Students will schedule this exam in collaboration with their advisory committee. During the semester of the proposal defense, the student will register for BIOLOGY 501. Pass or failure of this examination will be guided by a rubric filled out by the graduate student's advisory committee (see Appendix 3.4C). Upon passing the proposal defense, the student will provide a written copy of the proposal to the graduate coordinator and have the student's advisor verify that they passed the exam (via email) to the graduate coordinator.

5.6 RESEARCH PROPOSAL

PhD and thesis MS students are required to write and defend a research proposal. It is a requirement that this proposal be presented publicly to the department. The exam portion of the proposal defense will be restricted only to the student's committee. The research proposal will:

1. follow the format of a large granting agency for competitive grants, e.g., NSF, USDA, or NIH.
2. be developed in conjunction with the thesis committee; it is the committee's responsibility to approve the proposal and schedule the oral defense of the research proposal.
3. be submitted electronically to the Graduate Coordinator for the student's permanent file upon successful completion of the defense; the student will receive graded credit for BIOLOGY 501 from the thesis research committee.
4. for PhD students, be defended no later than one semester after the general-knowledge oral preliminary examination; however, it may be done before the oral preliminary examination. Thesis MS students normally defend their thesis research proposal in the second semester of their degree program.

5.7 THESIS

Each student must hold an advisory committee meeting one semester prior to anticipated graduation to present the thesis or dissertation draft to their committee. It is expected that this document serve as an agreement between the student and his/her advisory committee as what is expected in the final thesis or dissertation. However, it is recognized that some theses or dissertations may change in content during the final writing stages, and in such cases, the student should work with their committee to approve a revised draft prior to scheduling their defense.

5.7.1 Thesis Formatting

[For information on formatting the theses](#) please refer to the graduate school's [Dissertation/Thesis Submission Guidelines](#). All theses must also generally adhere

to the following guidelines for the reference section as approved by the individual candidate's research committee:

1. The complete draft of a MS thesis or PhD dissertation must be turned into the student's advisory committee at least 10 business days prior to when the student plans to have their committee fill out the thesis or dissertation defense scheduling form. This means that if the student plans on meeting the graduate school deadline of 10 business days prior to their defense, that they must give a complete draft of their thesis a minimum of 20 business days prior to the anticipated defense date.
2. The format for each chapter may follow the format for the journal to which the manuscript has been or will be presented (i.e., no consistent format is required between chapters).
2. Full citation for each reference (i.e., including all the authors and the title of the article) must be given throughout the thesis, but otherwise each chapter may follow the format of a particular journal.
3. Use a consistent form of citations throughout the thesis with the student selecting the format of a particular journal that gives the complete citation.

5.8 FINAL ORAL EXAMINATION

Final examinations for (thesis) MS and PhD degrees will follow existing Graduate School regulations (see [Graduate School Policies and Procedures](#).) All graduate students must satisfactorily pass a final oral examination in defense of their thesis research. After preliminary approval of the thesis by the thesis committee, the final examination will be scheduled through the Graduate School via the Graduate Coordinator. Copies of the thesis must be provided to each member of the thesis committee, thesis advisor, and the school at least 20 business days before the oral examination. An abstract must also be placed in Owen Science and Engineering Library. Questions asked during the final examination usually relate to the thesis research but are not limited to the thesis. Pass or failure of this examination will be guided by a rubric filled out by the graduate student's advisory committee (see [Appendix 3.4D](#)). Upon completion of the oral examination, a signed copy of the thesis must be presented to the Graduate School within five working days. Copies of the thesis will also be presented to the school and the thesis advisor.

5.9 TIMING OF DEFENSE FOR MS THESES AND PHD DISSERTATIONS

Thesis and dissertation defenses will take place during fall and spring semesters of each academic year. Only under unusual circumstances can a defense be held during summer, and only with prior approval of the student's committee early in the preceding spring. Many faculty in the school have research programs that keep them away from campus during summer, and many professional meetings and symposia take place at that time. Consequently, it may be impossible to find sufficient time during summer for the committee to read thoroughly the draft, provide comments, allow sufficient time to incorporate comments into a version suitable for defense, and identify a date for the defense. As such, students should not assume that committee members will be able to convene for a defense during summer, and should plan accordingly. Students need to find a day when everyone is available and allow a few weeks for all members of the committee to read and comment on the penultimate draft. Only after each committee member's comments have been received and corrections made to the draft will each committee member be expected to sign the form allowing the defense to be scheduled.

5.10 GRADUATION

Students are encouraged to apply for graduation and their degree the semester before they plan to graduate and obtain the appropriate packet of information regarding procedures and deadlines for thesis defense and graduation. Failure to meet deadlines could require enrollment for an additional semester. The graduate school deadlines for graduation can be found [here](#).

5.11 REQUESTS FOR EXTENSION

Occasionally, a student may not complete the degree in the time frame of his or her guaranteed funding from the School of Biological Sciences (MS 2 years; PhD with MS degree 5 years; PhD w/o MS degree 6 years) due to a variety of circumstances. In this case, the student must submit a request for funding extension request to the Graduate Programs Committee via the Graduate Coordinator that includes the following:

1. a justification for the extension request, outlining the **extenuating circumstances** that have led to the delay in graduation;
2. a timeline for completion of the degree program;

3. a letter of support from the student's advisor agreeing that the timeline for completion is reasonable.

Extension requests are only considered 1 semester at a time. Extension requests for Spring semester will be due September 15 and extension requests for Fall semester are due March 15 annually.

Additionally, if a PhD student is seeking an extension **and** they are at least 3 years beyond taking their oral qualifying exam, an exception to policy memo must be submitted to the graduate school outlining the justification for their extension request for 1 year (instructions [here](#); see pgs. 53-54). In the case of a second extension, the student's advisor must present the student's case at a faculty meeting and the faculty vote will need to be included in the exception to policy memo to the graduate school. Note that departmental extensions are done on a semester-by-semester basis and graduate school extensions are done one year at a time.

6.0 FELLOWSHIPS/AWARDS/TRAINEESHIPS

Students will not be allowed to spend funds from an SBS endowment fellowship or award until they have submitted their Program of Study form to the SBS Graduate Program Coordinator. This policy does not apply to scholarships awarded as recruitment incentives nor to students who receive awards in the first semester of their graduate program.

Through generous contributions from former Biology Faculty and their families, colleagues, students, and friends, several fellowships, awards, and traineeships have been established to support graduate training in Plant Biology. These funds provide excellent opportunities for graduate students' professional development. Graduate Coordinator will provide application materials for those who are eligible prior to each call for proposals.

6.1 FELLOWSHIPS/AWARDS/TRAINEESHIPS OPEN TO STUDENTS STUDYING PLANT BIOLOGY

Fellowship applications for Elling and Betty Higinbotham awards are due twice a year – October 1 and March 1. Applications for all other fellowships are due March 1. Application materials are reviewed by the Graduate Student Advisory committee, which will prioritize award funding. Students who are late in turning in their annual reviews or other important paperwork such as programs of study will not be eligible for these awards until their delinquency is corrected. Students must articulate in detail their request for funds and provide detailed budgets when applicable. Specifically, budgets should include details of travel costs that are based on online searches (such as airfare and lodging); unreasonable costs will result in budgets being reduced by the GPC or proposals being denied altogether. In general, award requests should only cover the proceeding 6 to 12 months. The GPC will request a re-budget when award requests exceed a 12 month time frame.

Upon receipt of an award, students will have 12 months to spend the award or the Department will reclaim unused award funds. In addition, students who receive Elling or Betty Higinbotham awards should keep track of their expenditures and balances so that overdrafts are avoided. The student may request a budget balance at any time from the Finance Office.

Details of each award follow.

6.1.1 Aase Fellowship in Plant Biology

Dr. Hannah Aase, PhD University of Chicago, 1914, was a member of the Plant Biology faculty at WSU for 35 years from 1914-1949 and was the first Emeritus Professor in the school. She began her career at WSU as she describes it as "instructor in anything whatsoever" which included teaching histology-anatomy and microtechnique. Being widely admired, she was described as a remarkable lady. In a seminar on May 17, 1949, she presented a colorful history of Plant Biology at WSU from the very beginning of the university in midwinter of 1892. She continued to read technical journals into her 90's. On the occasion of her 90th birthday one professor wrote, "You were always the eager 'student,' always sharp as a briar, but you had a way of living with your plants, in your garden and your laboratory, that gave you a peace of mind we all envied but were unable to emulate."

The Aase Fellowship, in honor of Professor Hannah Aase, is used primarily for recruitment of new graduate students. This fellowship provides at least \$2000 (\$1,000 a year for two academic years) in stipend support above and beyond that of a student's assistantship. Each spring, applicants for graduate study in Plant Biology are evaluated as potential recipients of Aase Fellowships. The fellowship may be used as a stipend or for any purpose the recipient wishes.

6.1.2 Orlin and Susann Biddulph Fellowship in Plant Biology

Dr. Orlin Biddulph, PhD, University of Chicago, 1934, was a member of the Plant Biology faculty at WSU for 36 years from 1937-1973. He was an internationally known plant physiologist who investigated absorption and translocation of mineral elements, and metabolite and mineral translocation in the phloem. He also established a Molecular Biophysics Laboratory with a unique biological spectrograph for the irradiation of whole plants with monochromatic radiation, and electron spin resonance and nuclear magnetic resonance spectrometers, and chaired a Biophysics Program. Dr. Susann Biddulph completed her PhD in Botany at WSU in 1944. It was here that they met and were married, working together as

research associates in the Department of Botany until retirement. The Biddulph Endowment was established by family, friends, and colleagues to honor both of their many achievements and contributions to the University community.

Awards are given on a competitive basis only to Plant Biology graduate students in the School of Biological Sciences who have shown exemplary progress in their graduate research. Availability of these awards depends on appropriate availability of funds. The awards are intended as recognition of that progress and as an aid to further research.

6.1.3 Brewer Fellowship in Plant Biology

Howard Brewer was an Emeritus Professor in Plant Biology at Washington State University. The Howard E. Brewer Memorial Endowment was established by his nephew, Don Brewer and several other family members to encourage and enhance the education experience of graduate students in the School of Biological Sciences who study plant biology. In addition to graduate fellowships, funds from this endowment are used to support the Howard Brewer Seminar Series in the School of Biological Sciences.

6.1.4 Hardman Native Plant Award in Plant Biology

The Hardman Foundation promotes conservation biology. Research that promotes conservation biology includes projects in systematic Plant Biology that contribute to understanding of evolutionary development or regional native plant variation within species or species complexes. Also important are studies of flowering plants considered rare, or that are depleted in range and need study, or require propagation for enrichment of their native range for use in botanical gardens or other suitable preserves. In addition, botanical investigations of geographical, climatological, edaphic and biotic factors that have led to adaptation are important subjects of conservation research.

Hardman Native Plant Awards were established through a gift from the Hardman Foundation to support Plant Biology graduate student research in the School of Biological Sciences. In developing the award, the Hardman Foundation recognizes the importance of all botanists who identify with and support conservation biology. Therefore, the award is not restricted to any particular botanical discipline. These awards, given on a competitive basis to Plant Biology graduate students in the School of Biological Sciences, are intended as an aid to

further the awardees' research. Availability of these awards depends on appropriate availability of funds.

6.1.5 Betty Higinbotham Trust Award in Plant Biology

Betty Higinbotham was the wife of Botany Department faculty member Noe Higinbotham. She was an accomplished botanist and shared her husband's interest in nature. She was a writer and editor for several national publications and a freelance writer for scientific journals and nature magazines. She graduated from Butler University, receiving a bachelor's degree in Plant Biology in 1932 and a Master's degree in 1935.

The Betty W. Higinbotham Trust was established to fund training and research opportunities for Plant Biology graduate students in the School of Biological Sciences. Although priority for awards is given to students wishing to study marine algae at the Friday Harbor Oceanographic Laboratory, applications can also be made for professional travel for graduate student development. The maximum accumulative award to any Plant Biology student during the course of their study normally will not exceed \$5,000 for MS students and \$10,000 for PhD students.

6.1.6 Noe Higinbotham Award in Plant Biology

Dr. Higinbotham was an internationally recognized plant physiologist as well as devoted teacher and mentor. He was a member of the Plant Biology faculty from 1948-1978, and during that time he pioneered investigations into the electrical properties of plant cells, receiving national and international honors for his research and writing. He earned an A.B. degree from Butler University in 1937 and a PhD from Columbia University in 1941.

The Noe Higinbotham endowment was established through generous contributions from Betty Higinbotham and friends, colleagues, and students of Professor Higinbotham to support graduate student research and training in Plant Biology. These scholarships are awarded on a competitive basis to all Plant Biology graduate students in the School of Biological Sciences. The awards are intended as recognition of that progress and as an aid to further research. Availability of these awards depends on appropriate availability of funds.

6.1.6 The Rexford Daubenmire Award in Plant Biology

Dr. Rexford Daubenmire, PhD University Minnesota, 1935, was a member of the Plant Biology faculty from 1946-1975. A fund was established beginning in the fall, 1994, in honor of Professor Daubenmire. Support from this fund will be used for graduate student training in Plant Biology when an endowment level is achieved. "Dauby", as he was universally known to generations of Plant Biology alumni, was an internationally renowned plant ecologist. During his highly productive career at WSU he supervised more than 35 PhD students and authored three widely used textbooks. His research interests spanned the field of plant ecology from drought and heat tolerance, symbiosis, fire ecology, ecotypic specialization, succession and soil deterioration in consequence of heavy grazing, and vegetation classification to ecologic plant geography. He was also a past president of the Ecological Society of America. Dauby has had a lasting influence on the world-wide stature and reputation of the Department of Plant Biology at WSU and set a high standard for scholarship and research that is continued in the School of Biological Sciences. Availability of these awards depends on appropriate availability of funds.

6.2 FELLOWSHIPS/AWARDS/TRAINEESHIPS OPEN TO BIOLOGY STUDENTS

6.2.1 The Brislawn Graduate Fellowship in Biology

The Brislawn Graduate Fellowship was established by the descendants of Guy and Mildred Brislawn to honor them and the many other members of the Brislawn family who have been associated with WSU for over 100 years. The award is given annually to recognize graduate students in Biology who exhibit high academic achievement and exceptional potential for becoming productive scientists and/or teachers. The candidate must be competitive with regards to GPA, publication and presentation history, and similar evidence of scholarship.

6.2.2 The James R. King Fellowship in Biology

The James R. King Fellowship is a research fellowship to be awarded competitively to an outstanding graduate student in Biology. This fellowship honors James King, a long-term member of Washington State University's faculty

who studied the physiological ecology of birds. The fellowship is intended to support scholarly research.

6.2.3 Charles W. and William C. McNeil Award in Biology

Charles Windslow McNeil was a longtime professor of Biology and a parasitologist at Washington State University. In 1946, Charles accepted a faculty position at WSU and began a long teaching and research career in Biology. Charles spent six months as a visiting scientist in the Department of Parasitology at the Alexandria University in Egypt in 1965-66. In 1964-65 and again in 1968-69, he served as acting chair of the Biology department.

Charles married Edna Wiesner in 1940. Their children are a son, Earle W. McNeil; a daughter Ellen E McNeil; eight grandchildren and six great-grandchildren. A son William C. McNeil, preceded Charles in death. His wife, Edna, established this fund in loving memory of her husband and late son, William.

William C. McNeil earned his Ph.D in history in 1968. He was a professor of history at Barnard College of Columbia University in New York until his death in 1993. He and his wife Victoria had two children Emily and Nathan.

6.2.4 Student Research Award in Biology

This award was established by a donation from the estate of Charles J. and June C. Campbell to fund student research in Zoology. Charles received his BS in Zoology from WSU in 1938. Although preference is given to undergraduates, SBS graduate students are also eligible for this award to support their research.

6.3 FELLOWSHIPS/AWARDS/TRAINEESHIPS OPEN TO STUDENTS IN BIOLOGY OR PLANT BIOLOGY DEGREE PROGRAMS

6.3.1. Carl H. Elling Endowment

The Carl H. Elling Endowment was established to provide off-campus training and research opportunities for Plant Biology and Biology graduate students in the School of Biological Sciences. Strong preference will be given to Biology students, and Plant Biology students are encouraged to apply for Betty Higinbotham awards (above). The maximum accumulative award to any graduate

student during the course of their study normally will not exceed \$5,000 for MS students and \$10,000 for PhD students.

6.3.2. Smoot Hill Graduate Student Research Fund

The Smoot Hill Graduate Student Research Fund was established by Dr. George Hudson, a member of the faculty, curator of the Connor Museum, and Supervisor of the Smoot Hill Preserve for Biological study. Awards are made for floristic and faunistic studies conducted at Smoot Hill. Grant recipients can receive up to two summer months of support at the rate of a half-time research assistant. Availability of these awards depends on appropriate availability of funds.

7.0 GRADUATE STUDENT REPRESENTATION

7.1 SCHOOL OF BIOLOGICAL SCIENCES REPRESENTATION

Graduate students hold several important representative positions within the school. One graduate representative serves as a liaison with the faculty and attend all faculty meetings, except those involving personnel matters. Each fall graduate students may elect this representative and notify the Director of their selection. The representative conveys graduate students' concerns or suggestions about the school to the faculty. In turn, the representative is responsible for conveying actions by the faculty to the students. The Director of the School of Biological Sciences will solicit graduate student representatives for these committees. In addition, all SBS students are eligible to join the Biology Graduate Student Association (BGSA), which is affiliated with the WSU Graduate and Professional Student Association (GPSA). The BGSA holds regular meetings and occasional events, including the annual graduate student research symposium, held each spring.

7.2 UNIVERSITY REPRESENTATION

All graduate students in the university who are currently enrolled in 10 or more hours are members of the GPSA. GPSA represents the concerns of graduate and professional students both within the university and nationally. The School of Biological Sciences has two representatives to the GPSA Senate (the governing body for GPSA) who are elected each fall. In addition, many of the important advisory committees within the university have voting positions for graduate students. Students are encouraged to become involved in positions of interest. For additional information please consult the [GPSA website](#).

7.3 GRIEVANCES

If grievances arise, the student may discuss the problem with the thesis advisor, the Associate Director for Graduate Studies in the school, the Director of the School of Biological Sciences, or as a final resort, the [WSU Ombudsman](#) (Wilson-Short Hall, Room 2, telephone 509-335-1195). If such grievances are not resolved, they may be also brought to the graduate school [following these guidelines](#).

APPENDICES

3.4.B

EVALUATION RUBRIC: ORAL PRELIMINARY EXAM

Candidate: _____

Committee Member: _____

Criterion*	Poor (1)	Fair (2)	Competent (3)	Good (4)	Excellent (5)
Demonstrates familiarity with and understanding of the primary literature relevant to the discipline					
Able to synthesize knowledge from courses and literature and apply this knowledge to research questions					
Demonstrates breadth of understanding of scientific principles outside of, but relevant to, their discipline of focus					
Applies principles and terminology of the discipline to a novel problem					
Communicates information in a clear and effective manner					

(*passing indicates an average score across the committee members of 3 or greater in at least 3 of the 5 categories)

Comments:

3.4C

EVALUATION RUBRIC: PROPOSAL DEFENSE

Candidate: _____

Committee Member: _____

Criterion*	Poor (1)	Fair (2)	Competent (3)	Good (4)	Excellent (5)
Understands and interprets scientific literature relevant to research topic					
Places their research in a broader scientific and sociological/cultural context					
Demonstrates ability to formulate hypotheses and develop experimental design					
Discusses appropriate analyses for relevant data types					
Defends research methodology and interpretation and considers alternative interpretations					
Interprets and presents preliminary research results in oral and written formats					

(*passing indicates an average score across the committee members of 3 or greater in at least 3 of the 5 categories)

Comments:

3.4 D

EVALUATION RUBRIC: THESIS OR DISSERTATION DEFENSE

Candidate: _____

Committee Member: _____

Criterion	Poor (1)	Fair (2)	Competent (3)	Good (4)	Excellent (5)
Understands and interprets scientific literature relevant to research topic					
Independently formulates cogent hypotheses, develops experimental design, and establishes and maintains experiments					
Collects relevant data and conducts appropriate analyses					
Defends research methodology and interpretation and considers alternative interpretations					
Interprets and presents research results in oral and written formats					
Demonstrates capacity to frame research in a broader context					

(*passing indicates an average score across the committee members of 3 or greater in at least 3 of the 5 categories)

Comments:

3.4.E
School of Biological Sciences

LEAD TA EVALUATION FORM

TA Name:

Course:

5=excellent 4=good 3=average 2=fair 1=poor NA=Not Applicable

- 1 How well did the TA define and attain the overall objectives of the laboratory/discussion section?
- 2 Give your overall impression of the TA's organization and preparation for class.
- 3 What was the TA's level of knowledge for this course?
- 4 How effective were the TA's explanations and demonstrations (technology & voice)?
- 5 How well did the TA stimulate thought and interest in the subject?
- 6 What was the quality of the interaction of the TA with the students?
- 7 What is our overall evaluation of the TA?

Please provide additional comments below or on the back of this sheet.

4.3.A

Request for Plant Growth Space

Name:

Growth Chambers

Type of Chamber Needed - _____

Number of Chambers Needed - _____

Plant Material to be Grown - _____

Time Needed - _____

Conditions – Light Intensity - _____

Photoperiod - _____

Temperature - _____

Relative Humidity - _____

Greenhouse

Amount of Space Needed - _____

(can be room number or number of square feet of bench space)

Plant Material to be Grown - _____

Time Needed - _____

Conditions – Photoperiod - _____

Temperature - _____

Supplemental Lighting – Yes ___ No ___

Type of Potting Supplies – Standard Greenhouse Potting Soil -

Sand - _____

Other - _____

Size of Pots - _____

Additional Comments:

HOMETOWN NEWS RELEASE FORM
Washington State University News Service

PLEASE PRINT CLEARLY

_____ Male
(Date) Female

Full name – first	M.I.	Last
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(Reason for story, such as, was awarded, _____
was elected, etc. Please list general _____
qualifications for scholarship or award _____
as well as name and amount of the _____
scholarship.) _____

Hometown

Field(s) of study at WSU	Class	Expected WSU graduation date
--------------------------	-------	------------------------------

High School attended and TOWN Yr Grad HS	Other degrees from which colleges
--	-----------------------------------

Mother's full name, address, city and state, zip code

Father's full name, address, city and state, zip code

Pullman local address	Pullman local phone
-----------------------	---------------------

List additional activities, honors or awards while attending WSU and additional information you think might add to the story. Use the other side if necessary.

Daily Newspapers & TOWNS

Weekly Newspapers & TOWNS

RETURN TO
College of Arts and Sciences
PO Box 643520
Pullman, WA 99164-3520
509 335-5548
Fax: 509 335-3295

I authorize WSU to release any of the above listed information to the media or to organizers for graduation and awards programs.

Signature

Date