

GRADUATE STUDENT HANDBOOK
DEPARTMENT OF BIOLOGICAL SCIENCES
UNIVERSITY OF SOUTH CAROLINA, COLUMBIA
2022-2023

1 CONTENTS

2	GENERAL INFORMATION FOR GRADUATE STUDENTS.....	3
2.1	General Policies for All Graduate Students.....	4
2.1.1	Individual Development Plans:	5
2.1.2	Graduate Curriculum/Coursework:	5
2.1.3	Graduate Lecture/Discussion Courses:	7
2.2	Research	7
2.3	Seminars	7
2.4	Graduate Student/Faculty Relationships.....	7
2.5	Office and Laboratory Care.....	8
3	Ph.D. DEGREE PROGRAM.....	9
3.1	Major Professor (Year 1).....	10
3.2	Take Qualifying Exam (Year 1).	10
3.3	Admission to Candidacy.....	11
3.4	Form a Ph.D. Advisory (Doctoral) Committee (Year 2).	11
3.5	Develop Core Curriculum and Program of Study (Year 1 and 2).....	12
3.6	Submit Program of Study (Year 2).	14
3.6.1	Complete the Foreign Language Requirement	15
3.7	Submit Research Proposal (Year 2).....	15
3.8	Pass the Comprehensive Examination (Year 3)	15
3.9	Satisfy Teaching Requirements.....	16
3.10	Write and Successfully Defend a Dissertation (Final)	16
3.11	Give a Dissertation Seminar (Final).....	17
3.12	Supply a Curriculum Vitae and Future Plans Form (Final)	17

3.13	Appeals Process	18
4	MASTERS (M.S.) DEGREE PROGRAM	19
4.1	Major Professor (Year 1).....	19
4.2	Form a Thesis Committee (Year 1).....	20
4.3	Take Qualifying Exam (Year 1).	20
4.4	Develop Core Curriculum and Program of Study.....	21
4.5	Submit Program of Study.....	22
4.5.1	Complete the Foreign Language Requirement	23
4.6	Satisfy the Teaching Requirement	23
4.7	Pass a Comprehensive Examination (Final)	23
4.8	Write and Successfully Defend a Thesis (Final).....	23
4.9	Supply a Curriculum Vitae and Future Plans Form	24
4.10	Transfer to the Ph.D. Program	24
4.11	Appeals Process	24
5	TRANSIENT GRADUATE STUDENTS	25
5.1	Admission Requirements.....	25
6	TEACHING ASSISTANTS	25
6.1	Duties and Responsibilities	25
6.2	Personnel Actions	26
6.3	Payment Schedule	26
6.4	Reappointment.....	26
6.5	Required Registration	27
6.6	Other Employment	27
7	RESEARCH ASSISTANTSHIPS.....	27
8	MISCELLANEOUS INFORMATION AND POLICIES.....	27
9	GRADUATE ASSOCIATION OF BIOLOGICAL SCIENCES (GABS).....	29
10	DIRECTORY OF KEY PERSONNEL	30
11	ACCESS TO GRADUATE STUDENT EDUCATIONAL RECORDS	31
11.1	Procedures for Access to Student Records.....	31
12	APPENDIX.....	33

2 GENERAL INFORMATION FOR GRADUATE STUDENTS

The purpose of the graduate program in Biology is to train biological scientists, skilled in teaching and research. Because of the vast scope of Biology, it is necessary that a mechanism be provided for a student to focus their primary attention on a specialized field within this discipline. In addition, a mechanism must be provided whereby a student may develop their background in areas supporting their primary interest. The organization and operating procedures of the graduate programs in Biology are designed to address both of these parameters.

2.0 MANDATORY HARASSMENT AND DISCRIMINATION PREVENTION TRAINING

Carolinian Creed

As a Carolinian ...

I will practice personal and academic integrity;

I will respect the dignity of all persons;

I will respect the rights and property of others;

I will discourage bigotry, while striving to learn from differences in people, ideas and opinions;

I will demonstrate concern for others, their feelings, and their need for the conditions which support their work and development.

As noted in the “Carolinian Creed”, the Department of Biological Sciences and the University of South Carolina are committed to providing a safe, healthy and inspiring environment for all our students, faculty and staff members — one that is free of discrimination and harassment. As part of our commitment to creating an inclusive campus and workplace, the UofSC Graduate School established a two-part series of required on-line Community Education Courses to help Graduate Students build skills that will enable you to recognize and deal with sexual assault prevention and reporting, mental health well-being, and issues around diversity and inclusion.

How to access the courses: Information will arrive by email or long into Self Service Carolina (my.sc.edu) and use the links under the Community Education tab. The courses open in mid-July. Part one must be completed by mid-September and part two must be completed by mid-November

2.1 GENERAL POLICIES FOR ALL GRADUATE STUDENTS

Each student must satisfy not only the requirements of the Department of Biological Sciences listed in this Biological Sciences Graduate Studies Handbook, but also those of the Graduate School as shown in the UofSC Graduate Bulletin (<http://bulletin.sc.edu/index.php>) and outlined here as well. Students are advised to secure copies of this Biological Sciences Graduate Studies Handbook and the UofSC Graduate Bulletin for their own use and read them carefully. Lack of knowledge of a regulation will not excuse the student from compliance with any regulation or degree requirement.

The Department of Biological Sciences offers diverse research and training opportunities that span the Biological discipline, including but not necessarily restricted to Biology of Stress, Cancer Biology, Ecology, Evolution, Marine Biology, Neurobiology, Plant Biology, Stem Cell and Developmental Biology, and Computational Genomics.

Below is a summary of student activities, in pursuit of a graduate degree in the Biological Sciences. Further details follow.

- **MAJOR PROFESSOR (FIRST YEAR):** All students choose or are matched with a Major Professor and. The Major Professor and the students Advisory Committee (described below) supervise all aspects of the student's graduate education, except for the Qualifying Exam.
- **ROTATION OPTION:** PhD students focusing in Molecular, Cell and Developmental Biology have the option of completing laboratory rotations during their first year to assist in identifying the laboratory they would be interested in joining. The director of the rotation program (Dr. Fabienne Poulain) will serve as the student's temporary academic advisor. Rotations are not available for M.S. students
- **QUALIFYING EXAM (FIRST YEAR):** All students take a Qualifying Exam consisting of a brief written research plan developed with the assistance of their major professor or rotation supervisor and orally presented to and evaluated by a departmental committee appointed by the Chair of either the Ecology and Evolution Group or Molecular, Cellular and Developmental Biology group. The research plan should be viewed as a preliminary proposal of the research area the student intends to pursue. This pre-proposal is not binding and is expected to change as the student develops their research direction in collaboration with their
- major professor and Thesis/Dissertation Committee. Students engaged in the rotation option will base their qualifying exam proposal upon the results of their rotation or the research they may wish to pursue in the laboratory they intend to join.
- **FORMATION OF A MASTERS ADVISORY (THESIS) COMMITTEE or PH.D. ADVISORY (DOCTORAL) COMMITTEE (FIRST OR SECOND YEAR):** All students should develop an advisory committee that mentors the student and approves all subsequent academic and research actions by the student. The committee is selected in consultation with the student's major professor and is approved by the Graduate Director.
- **PROGRAM OF STUDY:** All students develop a program of study or curriculum plan with the assistance and approval of their major professor and their Advisory Committee. The Program of Study (POS) detailing the curriculum plan is approved by the student's Committee and the Graduate Director and submitted to the Departmental Graduate Coordinator and the Graduate

School. M.S. students must submit their POS by the end of their **first year**; Ph.D. students must submit their POS no later than the end of their **second year**. Deviations in the POS are reviewed for approval by the Thesis (Master) or Ph.D. Advisory (Doctoral) Committee as well as the Graduate School, near the time of graduation. When there are no specific curriculum/course requirements; the curriculum plan should broadly reflect the student's educational needs in the context of their training and research goals.

- **RESEARCH PLAN (BY END OF SECOND YEAR)**, time determined by Thesis (Master)/Ph.D. Advisory (Doctoral) Committee: All students orally present a research plan to their advisory committee for approval; a written copy of the research plan is placed in the student's file in the Graduate Office.
- **COMPREHENSIVE EXAM (SECOND OR THIRD YEAR)**: All students take a comprehensive examination, under the guidance of their advisory committee. For M.S. students, the written Thesis and its oral defense serve as the Comprehensive Examination (SECOND OR THIRD YEAR). For Ph.D. students the Comprehensive Exam is separate from the Dissertation; the style and details of the Ph.D. Comprehensive Exam is determined by the student's Doctoral Advisory Committee.
- **THESIS / DISSERTATION**: All students must write and orally present and defend a research-based Thesis (M.S.) or Dissertation (Ph.D.); the Thesis / Dissertation is presented to the Thesis (Master) / Doctoral Committee which determines whether or not the student has sufficient accomplishments to receive the appropriate degree. Ph.D. students present their research to a general audience; M.S. students are not required to do this but are encouraged to do so.

2.1.1 Individual Development Plans:

Each student is required to complete and submit to the Graduate Coordinator an Individual Development Plan (IDP) by May, every other of their graduate program, unless otherwise indicated by the Graduate Director.. The IDP consists of multiple parts: a portion documenting that the student has met with their committee to assess the student's progress towards graduation and a second portion documenting the accomplishments of the student during the year. The IDP includes a section asking the student to outline their professional goals so the committee may better advise the student on whether their research and educational program will be valuable in meeting those goals. Finally, there is a section where the student's primary mentor evaluates the progress of the student. In the case where the assessment indicates that the student is not making good progress toward graduation the mentor and the committee will work with the student to establish a remediation plan to put the student back on track. The IDP is due on May 15 for review by the Graduate Director and if necessary, the Graduate Studies Committee.

2.1.2 Graduate Curriculum/Coursework:

While the Department has no specific course requirements, individual programs (such as MCDB, EE, Neurobiology, Plant Biology) may require certain courses be taken; a Program of Study is individually developed for each student by the student and their Major Professor and with the guidance and approval of the student's Advisory Committee. This *Program of Study* form (signed by the members of the Committee) is submitted to the Graduate Office and then forwarded to the Graduate School.

Credits required to graduate with a M.S. degree: To graduate, the University of South Carolina requires that M.S. students complete at least 30 course credits. At least half of the total credits (at least 15) must be courses numbered 700+, excluding BIOL 799. These 700+ courses can include BIOL 798 (Research in Biology). Three of the 30 credits must be BIOL 799 (Thesis Preparation).

Credits required to graduate with a Ph.D. degree: To graduate, the University requires that Ph.D. students complete at least 60 course credits if entering without a completed M.S. degree, or 30 course credits if entering with a completed M.S. degree. Twelve (12) credits must be BIOL 899 (Dissertation Preparation); at least half of the total credits (at least 30 without a M.S., or at least 15 with a M.S.) must be courses numbered 700+, excluding BIOL 899. These +700 courses must include BIOL 798 (Research in Biology).

Credits required for Full Time Status (Assistantships, Fellowships, Neither): UofSC distinguishes between Assistantships (funded by UofSC) and Fellowships (funded by outside sources), as well as between Fellowship support administered through UofSC and Fellowship support paid directly to the student.

Graduate Assistantships: Students supported as Graduate Assistants (Research or Teaching) must be registered as "Full Time Students". The University and the Department require that students, for Full Time status, must therefore register for at least 6 credits each Fall and Spring term, and 3 credits over the summer (total 15 credits per year).

Non-Assistantship Support: UofSC requires students NOT supported as Graduate Assistants (Research or Teaching) to register for 9 credits each Fall and Spring term for Full Time status.

Fellowships: Fellowships are considered Non-Assistantship Support. Students supported by Fellowships must refer to the terms of their Fellowship, which typically require Full Time enrollment as the University defines it (9 credits Fall and Spring, unless otherwise stated); students supported on a Fellowship should consult with the Graduate Director and Graduate Office regarding this, as credit reduction to 6 credits may be possible.

SREB Fellowships: Students on SREB Fellowships may register for 6 credits Fall and Spring to satisfy both the terms of their fellowship and receive Full Time status at UofSC.

Part Time Status: Part Time status does not prevent a student from graduating with a M.S. or Ph.D.; however, certain University privileges are denied to students designated Part Time rather than Full Time. Consult the Graduate Office for more information. Enrollment requirements can change so students should consult with the Graduate Coordinator to determine whether there have been any changes in the credit requirements for their specific form of support, especially if their support changes.

Biol 798 - Research in Biology: Students should register for BIOL 798 (section number associated with your Major Professor) if you are not taking a lecture/discussion course, Thesis Preparation (BIOL 799) or Dissertation Preparation (BIOL 899). Most of your registered credits will probably be BIOL 798, especially for Ph.D. students. If registering for BIOL 798, Ph.D. students conducting rotations during their first year should choose the section number associated with the Professor of their first rotation.

Biol 799 - Thesis Preparation: The Department requires the University minimum of 3 credits of BIOL 799 for M.S. students. To register for these credits, you will need to see the Graduate Coordinator. It is strongly recommended that M.S. students do not register for more than 3 credits of BIOL 799.

Biol 899 - Dissertation Preparation: The Department requires the University minimum of 12 credits of BIOL 899 for Ph.D. students. To register for these credits, you will need to see the Graduate

Coordinator. It is strongly recommended that Ph.D. students do not register for more than 12 credits of Biol 899. Furthermore, we recommend that students satisfy their 899 requirements during Year 4 to ensure they are completed prior to their defense.

Graduate Courses:

Students should check the current course offerings to determine which lecture/discussion courses may be available and appropriate for them to take. The student should consult with their advisor in order to decide which courses are appropriate for their course of study. Students should be and are free to choose courses as interest and need indicates. Appropriate courses of interest may be offered both outside the Department and outside the University. Students must consult with their advisor and their committee to plan a Program of Study (POS) that serves the interests and needs of the student.

2.2 RESEARCH

Both the PhD and MS degrees place a high priority on research. In consultation with their professor, a graduate student develops an original research proposal for approval by their Advisory Committee. The research is carried out under the direction of the major professor and is the basis of the Thesis (M.S.) or Dissertation (Ph.D.). A high level of research performance is expected of all students, with a quality appropriate for publication in refereed scientific journals.

All graduate students are required to undergo Environmental Health and Safety Training. In particular, all laboratory personnel need to take Chemical and Lab Safety Training and Hazardous Waste Training. Those working with human cells or tissues need to take Biosafety and Bloodborne Pathogens Training. Trainings are offered on a regular basis and the schedule can be found on the UofSC Environmental Health and Safety website.

https://www.sc.edu/about/offices_and_divisions/ehs/training/research_laboratory_safety/training_schedule/index.php

2.3 SEMINARS

The Department of Biological Sciences conducts formal and informal seminars. Through these seminars, students are introduced to current developments in the biological sciences and can meet recognized scientists. Formal seminars usually involve speakers from other departments and campuses. Additional seminars are scheduled periodically. ALL GRADUATE STUDENTS ARE EXPECTED TO ATTEND FORMAL SEMINARS ON A REGULAR BASIS.

Informal seminars and Journal Clubs provide an opportunity for graduate students and faculty to meet in an informal setting, where they may present their own research findings or discuss current literature. Faculty and students organize their own informal seminars and Journal Clubs and schedule these at times convenient to the participants. Each graduate student can be expected to present at least one informal seminar each year.

2.4 GRADUATE STUDENT/FACULTY RELATIONSHIPS

Graduate students in the Department of Biological Sciences are considered an integral part of our professional family and are formally represented by the Graduate Student Organization (GABS). They should always feel free to discuss their curricula, career goals, and other concerns with any of the faculty. The graduate student normally establishes close rapport in the daily working relationships with their major professor and research colleagues. Mutual respect and common courtesy should prevail in

all relationships among faculty and graduate students. Students should maintain a professional attitude regarding their faculty and student colleagues in any postings on social media. Students should be aware that postings on social media or by any other form of electronic communication can become available to individuals other than those to whom the original communication was intended. These communications can form the basis of disciplinary action, including dismissal if they are viewed as derogatory, harassing, or otherwise unprofessional. In the event that a student feels that problems with their advisor have developed, there are mechanisms in place to try to deal with such situations. This is discussed in a later section of the handbook (3.13)

Finally, the Department of Biological Sciences gathers people with a rich diversity of backgrounds and experiences. We strongly support equality, diversity, equal opportunity and justice, and condemn the injustices and prejudices that members of minority communities often face. We absolutely reject any form of racism and discrimination, be they based on color, ethnicity, nationality, gender, sexual orientation, or religion, and stand in solidarity with Black, Indigenous, and People of Color to promote equality for all.

2.5 OFFICE AND LABORATORY CARE

Graduate degree students will be assigned desk and laboratory space appropriate to their requirements. It is essential that graduate students maintain these areas in an orderly state and not infringe upon the space and patience of their colleagues. If additional space is needed the graduate student should contact their major professor or the Department Chair.

3 PH.D. DEGREE PROGRAM

The Ph.D. degree in the Department of Biological Sciences is a research degree and is awarded to those individuals who have exhibited the ability to do independent and original scientific investigation. The M.S. degree is not a prerequisite for the Ph.D. Program.

The following procedures and examinations are required of all students enrolled in the Ph.D. degree program of the Department of Biological Sciences.

Year	All PhD Students (Months noted for students starting Fall term; students starting Spring term may alter schedule accordingly)
1	Harassment and Discrimination Major Professor (May) Qualifying exam (Spring or Summer) Rotation Option (first rotation established by mid-August; consult rotation guidelines in Appendix)
2	Form Ph.D. Advisory Committee Develop Curriculum and Submit Program of Study (end of Spring Semester) Advance to Candidacy (end of Spring Semester – submitted by Graduate Coordinator) Defend Research Plan (no later than Fall semester of Year 3) Submit IDP (due May 15)
3	Comprehensive Exam (no later than August of year 3)
4-6	Dissertation and Defense **note deadlines established by the university Submit application to graduate through Self-Service Carolina Complete and Defend dissertation and submit dissertation for formatting review Submit IDP, Future plans Complete on-line Survey of Earned Doctorates

NOTE: If any deadlines in this Handbook are not met and an extension has not been granted by the Graduate Studies Committee, THE STUDENT MAY BE PREVENTED FROM REGISTERING. Since students must register to qualify for financial support, a hold on their registration would terminate such support. Please do your utmost to adhere to the schedules. Discuss any concerns with the Graduate Director.

3.1 MAJOR PROFESSOR (YEAR 1).

A. When: All students must have a Major Professor. In general, most students are accepted directly into a specific laboratory, and therefore have a Major Professor when they join the Department. In some cases, students may be allowed to rotate through 2 or 3 labs prior to choosing one or may transfer into the Department from another program (e.g. the Integrated Biomedical Sciences Graduate Program); in such cases all students should have chosen a Major Professor by the end of Year 1, Spring term (May).

B. How: As the relationship between student and Major Professor is by mutual agreement, it is formalized by submission of a completed *Selection of Major Professor* form to the Graduate Director as soon as a major professor is chosen (e.g. for rotation students, students entering from another program, students changing Major Professors). The form is available from the Department Graduate Office.

A graduate student may change their Major Professor at any time up to the point at which they attempt the Comprehensive Examination. In the event that a graduate student deems a change of Major Professor to be necessary, they should discuss the situation with the Graduate Director as soon as possible and will be strongly encouraged to discuss matters with the current Major Professor to resolve issues or to ease the transition to a new laboratory. If personal friction is involved, the Department Chair will serve as an intermediary to arrange for a mutually satisfactory transition. If it is determined that the best course of action would be to leave the current laboratory and find another faculty member to work with, the Graduate Director will discuss options with the student and provide the student with a sufficient amount of time (no longer than one semester or the summer session) to locate a new mentor. If, after that time, the student fails to identify a new mentor, the student's enrollment in the graduate program will need to end.

The Major Professor is responsible for advising the student on course-work and supervising their research until the Ph.D. Advisory Committee is established. After that time the Ph.D. Advisory Committee approves the course-work of the student, but the Major Professor continues to be the primary academic and professional mentor and research supervisor.

C. ROTATION OPTION: PhD students focusing in Molecular, Cell and Developmental Biology have the option of completing laboratory rotations during their first year to assist in identifying the laboratory they would be interested in joining. The director of the rotation program, Dr. Fabienne Poulain, will serve as the student's temporary academic advisor. Students selecting the rotation option must consult the Rotation Guidelines (see Appendix), complete the first Rotation Agreement Form (see Appendix) and submit it to Dr. Poulain at least two weeks before the student's first rotation. The student must also complete a Rotation Evaluation Form (see Appendix) at the end of each rotation choose a laboratory and their Major Professor by May of their first year.

3.2 TAKE QUALIFYING EXAM (YEAR 1).

A. What: The Qualifying Exam in the Department of Biological Sciences consists of a brief (5-page) written and orally defended research plan, focusing on research planned for the immediate future that may be projected to either a M.S. Thesis or a Ph.D. dissertation. This research plan should be presented in the general form of an NSF or NIH grant proposal (though of much shorter length) and developed with the advice of the student's Major Professor. The Major Professor is however not allowed to correct or

edit the student's written research plan. The written research plan will be evaluated by an appropriate departmental committee. It will then be orally presented and evaluated by the same committee a few weeks later. Upon the successful completion of the Qualifying Exam the chair of the review committee will submit a *Biology Graduate Student Assessment* Form (Appendix) to the Graduate Program Coordinator indicating that the student has passed the exam as well as The *Doctoral Qualifying Exam Verification* form (available at: http://gradschool.sc.edu/forms/doc_comprehensive_exam_verification.pdf).

A major goal of the Qualifying Exam is to ensure that a dialogue is occurring between student and Major Professor and that the student has a plan in place for initiating their graduate research. Other goals are to ensure that students re learning to develop a research plan and communicate that plan in writing and orally, and that students can research the literature of their area or field.

B. When: The Qualifying Exam will be scheduled at the end of the student's first year. For students entering Summer or Fall term (typical), the Qualifying Exam will be held at the end of the Spring or Summer session of the following calendar year. For students entering in the Spring term, the Qualifying Exam may be held either in December of the same year or the following Spring or Summer terms.

Failure to successfully complete the Qualifying Exam within the designated time period will result in dismissal from the Ph.D. program.

3.3 ADMISSION TO CANDIDACY

Ph.D. students are required to be "admitted to candidacy" which indicates they have completed the prerequisites establish by the Graduate School before proceeding with the development of their dissertation. Each student must successfully pass the **Qualifying Exam** and submit a **Program of Study**. The Program of Study must be approved by the student's Advisory Committee so the student must also form a committee before completing the Program of Study. Upon completion of each component the student should submit the required documents to the Graduate Program Coordinator in the Biological Sciences Graduate Office. The Graduate Coordinator will submit the competed packet to the Graduate School for the student to be admitted to candidacy.

3.4 FORM A PH.D. ADVISORY (DOCTORAL) COMMITTEE (YEAR 2).

A. Who: The Ph.D. Advisory (Doctoral) Committee consists of at least five members:

1. The major professor;
2. One member of the Biological Sciences Department whose interests are directly related to the student's research goals;
3. One member of the Biological Sciences Department whose interests may lie outside the student's research goals;
4. One other member of the Biological Sciences Department; and
5. A member from another department or university.

The Ph.D. Advisory (Doctoral) Committee is be formalized by submitting a Doctoral Committee Appointment Request (available at: <http://gradschool.sc.edu/forms/G-DCA.GS48.pdf>) to the Graduate School for approval.

B. Duties: The Ph.D. Advisory Committee is responsible for approval of a dissertation research program and the Program of Study, administration of both the comprehensive and dissertation examinations, and approval of the dissertation. The Ph.D. Advisory Committee must meet at least once a year to review the progress of the student and must provide an annual evaluation of the student's progress towards graduation. The Committee Chairperson is responsible for submitting an annual Individual Assessment to the Graduate Director informing the Graduate Director of the student's progress toward graduation. If the student is not making satisfactory progress towards graduation it is the responsibility of the Ph.D. Advisory Committee to formulate a remediation plan to correct any deficiencies and a timeline for the implementation of this plan. If a remediation plan is deemed necessary, it should be included as part of the annual Individual Development Plan. The Chair of the Ph.D. Advisory Committee must inform the Graduate Director in writing (e.g. by e-mail) of all official actions of the Committee. Four positive votes are required for approval of any action by the Committee (all save one if the Committee has more than five members).

C. When: The Ph.D. Advisory (Doctoral) Committee must be appointed by January of the student's second year in the program but may be appointed at any time prior to that date.

D. How: The Major Professor will notify the Graduate Director in writing (e.g. by e-mail) recommending faculty members for the student's Committee. The composition of the Committee is then approved by the Graduate Director and the Dean of the Graduate School. The Department Chair or the Major Professor may designate a member other than the Major Professor as the Chairperson of the Committee.

NOTE: IF THE OUTSIDE MEMBER IS NOT A MEMBER OF THE GRADUATE FACULTY OF USC, THEN THE PROPOSED MEMBER MUST BE NOMINATED TO THE GRADUATE SCHOOL FOR A "TERM APPOINTMENT". The form is available in the Graduate Office and online through <http://gradschool.sc.edu/forms/G-TAN.GS58.pdf>. The nomination must include the nominee's curriculum vitae and a memo of nomination that provides justification for the appointment, addressing both the nominee's qualifications and the unit's need for making the nomination. If the person does not hold the terminal degree, special justification must be provided. If the individual is on the faculty of another recognized institution, the Term Appointment is not necessary; only the CV and memo addressing the value of the person being on the committee.

If the composition of the Ph.D. Advisory Committee needs to be changed later, the major advisor should follow the same procedure outlined above and changes in the Committee must be approved by the Graduate Director. A justification for a change in the committee will likely be required.

3.5 DEVELOP CORE CURRICULUM AND PROGRAM OF STUDY (YEAR 1 AND 2).

A. What: The Ph.D. graduate curriculum in Biological Sciences consists of coursework chosen by the student, and aside from a few courses that are required to be taken (applies to MCDB program), courses are chosen in consultation with the Major Professor and Ph.D. Advisory Committee. Ph.D. students must earn at least 60 credits at least half of which must be at the 700 and 800 levels (including 798) and at least 12 of which (and no more than 30) must be Dissertation Preparation (BIOL 899). In addition, graduate students are restricted to 12 hours of coursework over their graduate careers from any single department/program outside of the Department of Biological Sciences; this restriction can be waived by

the Ph.D. Advisory Committee. These requirements should be considered the minimum; additional requirements may be imposed up by the Ph.D. Advisory Committee with the approval of the Department Chair.

B. How: Students choose a curriculum appropriate to their needs and interests, with consultation from their Major Professor and Ph.D. Advisory Committee. Until the Ph.D. Advisory Committee has been appointed the student's Major Professor is responsible for approving the curriculum of the student. Following its appointment, the Ph.D. Advisory Committee must approve the Program of Study (see below); thus the Program of Study (POS) becomes a contract between the Student and the University regarding the student's curriculum. Deviations from the POS must be reviewed and approved by the student's Ph.D. Advisory Committee prior to graduation and a Program of Study Adjustment form (found on the Grad School website).

REQUIRED COURSES FOR STUDENTS IN MCDB PROGRAM

A MINIMUM of three 500-800 – LEVEL LECTURE COURSES. CHOSEN IN CONSULTATION WITH THE ADVISOR AND/OR ADVISORY COMMITTEE (9 cr total):

Examples include, but not limited to: Biol 523 (Plant Development), Biol 614 (Stem Cells), 635 (Neurophysiology), 671 (Plant Responses to Environment), 711 (Nucleic Acids), 714 (Cell Biology), 717 (Biochemistry I), 718 (Biochemistry II), STAT 704 (Data Analysis)

BIOL 801 - SCIENTIFIC COMMUNICATION (3cr) – offered every Fall semester

BIOL 804 – RESEARCH SEMINAR* (1cr) – offered every Spring semester; must be taken four semesters (4 cr total)

** Biol 804 is a seminar-based course where students present their research. All 4th and 5th year students must present their research. Presentation by 1st, 2nd, or 3rd year students is optional.*

C. Grades: A student is required to pass all courses in their program and must maintain a minimum GPR of 3.00 for each academic year. In addition, the student's grade must be at least B (3.00) for all courses attempted for graduate credit and on all courses numbered 700 or above. A student who accumulates more than 8 hours of C+ or lower in graduate courses will be dismissed from the degree program.

D. Credit for Previous Work: Any of the above requirements completed at the M.S. level at UofSC-Columbia may be applied to the Ph.D. requirements. The number of credit hours that can be transferred is limited to 24 (see the Graduate School Bulletin). Course work transferred for credit toward a doctoral degree must 1) be approved by the Advisory or Doctoral Committee and the Graduate School; 2) be from an accredited institution recognized by UofSC; 3) carry graduate credit with a grade of "B" or better (or equivalent marks if different grading system is used); 4) be dated within the eight-year period for courses used in the doctoral program; and 5) not constitute more than 50 percent of the hours listed on a program of study (not including 899 or the equivalent). NOTE: A *Request For Transfer of Graduate Credit* form must be submitted in order for transfer credit to be counted (the form is available at: <http://gradschool.sc.edu/forms/G-RTC.pdf>). Transfer credits are not posted to the student's transcript until graduation and are not calculated into the student's cumulative GPA; acceptance of credit can be confirmed through the Graduate Office.

E. Residency: UofSC imposes a doctoral residency requirement stating that, all students admitted to a doctoral degree program and who are Graduate Assistants must enroll in at least 12 graduate credit

hours within a span of two consecutive semesters (excluding summers). Enrollment in a summer term is not required to maintain continuity, but credits earned during summer terms (including May Session) will count toward the 12 hours required for residency.

The intent of a residency requirement is to ensure that doctoral students benefit from and contribute to the full spectrum of educational and professional opportunities provided by the graduate faculty of a research university.

F. Course validation/ Revalidation: All coursework (including that taken at other institutions) must be completed within 10 years of the defense of the student's dissertation. Courses that fall outside of this time frame and that were taken at UofSC can be revalidated by having the professor responsible for the course either certify that the course content has not changed during the elapsed time or that the professor has reexamined the student and found that they have satisfactory knowledge in the area. This certification is evidenced by the faculty member's signature on the *Permit for Revalidation* Form (GS 04), obtained from the Graduate School. If the original professor is not available, the professor currently teaching the course can revalidate it. If the original professor is not available and the course is no longer being taught, the course can be revalidated by the student's Committee. Courses taken outside of UofSC cannot be revalidated.

SUBMIT PROGRAM OF STUDY (YEAR 2).

A. What: The *Program of Study* (POS) (required by the University) is a form on which are listed all courses taken or planned to be taken (lecture and research): (1) which are approved by the student's Committee and (2) which sum to the credit requirement of the University (30 credits for M.S., 60 credits for Ph.D. without an M.S., 30 credits for Ph.D. with an M.S.). Most courses may be BIOL 798 (Research); Ph.D. students must include at least 12 (and no more than 30) credits of 899 (Dissertation Preparation). GRAD 701 does not count as part of the POS and should not be included. The POS should include the following:

1. All coursework required to satisfy the above requirements (including up to 12 credits taken at other institutions (see "Credit for Previous Work" above) as approved by the student's Advisory Committee;
2. At least 12 (and not more than 30) credits of BIOL 899, Dissertation Preparation;
3. Additional coursework to total 60 hours (or 30 hours for students entering with a M.S. degree) (e.g. BIOL 798);
4. The language requirement is to be waived (see below);
5. The signatures of the student and the Chairperson of Ph.D. Advisory Committee (representing the full Committee).

B. How: The *Doctoral Program of Study* form is available through the Graduate School at: <http://gradschool.sc.edu/forms/Doctoralprogramofstudy.pdf>. The completed form should be submitted to the Biological Sciences Graduate Coordinator.

C. When: The POS can be submitted at any time but should be submitted no later than Spring semester of the second year and must be submitted prior to taking the Comprehensive Exam. Submission of the POS is required for Admission to Candidacy (along with passing the Qualifying Exam). The POS can be submitted prior to completion of core curriculum.

D. Approvals. The POS must be approved (signed) by the Chairperson of the student's Ph.D. Advisory Committee (representing the full Committee) and by the Graduate Director and is then submitted to the Graduate School for final approval.

E. Revisions. An updated POS should be submitted if the curriculum deviates from the initial version; changes (omission) of proposed lecture courses must be approved by the student's Doctoral Committee and submitted to the Graduate School.

3.5.1 Completion of the Foreign Language Requirement

Although UofSC requires candidates for the Ph.D. Degree to be proficient in a language other than English, the Department of Biological Sciences has permission to waive this requirement. "Waived" should be entered in the appropriate space on the Ph.D. *Program of Study* Form (available at: <http://gradschool.sc.edu/forms/Doctoralprogramofstudy.pdf>).

3.6 SUBMIT RESEARCH PROPOSAL (YEAR 2 PREFERERD, BUT NO LATER THAN END OF FALL OF YR 3)

A Ph.D. candidate must write, present and defend a plan of their doctoral research to their Ph.D. Advisory Committee. The format of the Research Proposal is determined by the student's Committee. The Chair of the student's Committee must inform the Graduate Coordinator that the Research Proposal has been approved and must also submit a *Biology Graduate Student Assessment Form* (Appendix) assessing the student's written and oral presentation of the proposal. A copy of the student's Research Proposal as approved by the Doctoral Committee must be submitted to the Graduate Director for inclusion in the student's permanent file.

PASS THE COMPREHENSIVE EXAMINATION (YEAR 3)

A. What: The candidate will be required to pass a written, followed by an oral, comprehensive examination on the fields of study for which the student is responsible. The goal of Comprehensive Exam is to help the student develop an extensive knowledge of the research discipline. The requirement that the exam be completed by the end of the student's third year allows the student to incorporate that knowledge into the progression of the dissertation research. There is no standardized style or format for the Comprehensive Exam. For all students, the format of the Comprehensive Examination and its administration is determined by the student's Doctoral Committee. However, the Examination must include both a written document and an oral presentation/defense of that document.

Two common formats for the Comprehensive Exam within the Department of Biological Sciences have been: (1) a grant proposal in the style of an NSF or NIH grant proposal on a subject distinct from the student's dissertation research (subject chosen by the Committee from among several submitted by the student); and (2) essays written in response to specific questions posed by each member of the Doctoral Committee. A third format that has been occasionally used is for the student to write a review paper on a selected subject in the form of a manuscript. A limited time may be imposed for the completion of the written component.

At least ten days but not more than six weeks shall elapse between the completion of the written and oral examinations. Any member of the Biology Faculty may attend the oral examination, and ask questions of the candidate, but the Committee alone will assess the student's achievement. If a student does not pass either the written or oral portion, they may, at the discretion of the Committee in consultation with the Department Chair, be allowed one retake of that examination after a three-month interval.

B. **Notification:** The Chair of the student's Committee must submit the *Doctoral Comprehensive Exam Verification* form (available at:

http://gradschool.sc.edu/forms/doc_comprehensive_exam_verification.pdf)

to the Graduate Coordinator to confirm that the student has passed the Comprehensive Exam. The Chair also submits a *Biology Graduate Student Assessment Form* (Appendix) to the Graduate Coordinator assessing the student's performance on the Comprehensive Exam. In addition, the written portion of the comprehensive examination must be submitted for inclusion in the student's permanent file.

C. **When:** Both the written and oral portions of the Comprehensive Examination should be completed no later than August of the student's third year.

3.7 SATISFY TEACHING REQUIREMENTS

A Ph.D. student is required to complete two semesters as a teaching assistant in Biology courses. All students, irrespective of financial support (e.g., Research Assistantship, Fellowship), must complete this requirement. If the student has previous teaching experience at the collegiate level or its equivalent, they may request a waiver of this requirement from the Graduate Studies Committee. Ph.D. students conducting rotations during their first year are encouraged to complete their requirement as teaching assistants during that time period.

3.8 WRITE AND SUCCESSFULLY DEFEND A DISSERTATION (FINAL)

A dissertation based on original research is required of all Ph.D. candidates. The content and format of the Dissertation is determined by the student and student's Ph.D. Advisory Committee. During the writing of the dissertation, the Major Professor and at least one other committee member is encouraged to read and advise on one or more preliminary drafts. Copies of the final dissertation will be evaluated by all members of the Dissertation Committee. All dissertations must be submitted for a formatting check and be approved prior to graduation. The Graduate School encourages students to submit their dissertation early, as a preliminary draft, in order to insure that the requirements are being met. Once the defense has taken place and all corrections are complete, the dissertation is submitted for final format approval.

Information regarding formatting and submission can be found here:

https://sc.edu/study/colleges_schools/graduate_school/academics/thesis_and_dissertation/index.php

The Ph.D. candidate must also pass an oral Dissertation Examination, which shall be administered and evaluated by the Ph.D. Advisory Committee (Doctoral) Committee. The Biological Sciences faculty must be informed by email of the time and place of the defense seminar at least one week ahead of the event. Approval of the Dissertation requires at least four affirmative votes. The Committee Chairperson is responsible for notifying the Graduate Director of the results of the vote, in writing (e.g. email) and submitting a *Biology Graduate Student Assessment Form* (Appendix) assessing the student's

performance on the Dissertation. Finally, students earning a PhD are expected to have published or submitted for publication at least one manuscript dealing with their research.

NOTE: Typically, the oral portion of the Dissertation Examination follows the public presentation of the Dissertation Seminar (see below), and thus the two are combined in a single event. A period of public questioning may follow the Dissertation Seminar, after which the general public is asked to leave, allowing questioning by the Doctoral Committee.

3.9 GIVE A DISSERTATION SEMINAR (FINAL)

Upon completion of the dissertation research, the Ph.D. candidate presents a formal seminar to the Department of Biological Sciences, in which the student will discuss and defend their dissertation. The dissertation seminar is a public exposition of the student's research findings and interpretations, with open discussion of the presentation. The seminar should therefore be:

1. Scheduled on a day, and at a time, suitable for attendance by most Biological Sciences Faculty and graduate students,
2. Formally publicized a minimum of one week prior to the seminar (a copy of the announcement should be submitted to the Biological Sciences Graduate Office), and
3. Announced to other departments whose faculty or students might be interested in the seminar subject.

The seminar should precede the defense and may serve the function of an oral presentation for the Doctoral Committee as a part of the dissertation examination.

3.10 PROVIDE A CURRICULUM VITAE AND FUTURE PLANS FORM (FINAL)

All students are asked to supply the Biology Graduate Office with a current Curriculum Vitae and a completed *Future Plans* form (Appendix) before being cleared for graduation. In addition, the Graduate School requires that the graduate complete the "Survey of Earned Doctorates" and submit the Certificate of Completion to the Graduate School along with the completed Dissertation Approval Form (https://www.sc.edu/study/colleges_schools/graduate_school/forms_library/index.php).

3.11 APPEALS PROCESS

A. Any Graduate School regulation concerning academic matters only can be appealed to the Graduate School. The written petition should contain the name of the petitioner, student's ID number, the assessment of the departmental Graduate Studies Committee and the following:

1. The regulation in question,
2. The action requested,
3. A justification for the action,
4. The consequences if the appeal is approved/disapproved, and
5. Any other facts relevant to the student's request.

The petition will be reviewed by the Graduate Dean who may act on the request; or the Dean may refer the matter to the Petitions and Appeals Committee of the Graduate Council for review and recommendation to the Graduate Council, whose decision is final.

B. Any Departmental regulation can be appealed to the Graduate Studies Committee. The student can appeal a negative decision to the Graduate School only if there is evidence of any of the following:

1. Inequitable application of the regulations,
2. Bias,
3. Conflict with the Graduate School regulations, or
4. Extenuating circumstances.

Such petitions to the Graduate School should follow the procedures outlined in (A) above. Any further appeal must be directed to the Office of the Provost.

C. Students having disputes with their advisors or committee members can request mediation by the Graduate Director and/or Department Chair. However, neither the Department Chair nor the Graduate Director can overrule graduate faculty with respect to their judgments of the quantity or quality of the student's research, supplemental coursework expected, or other requirements for the awarding of graduate degrees.

D. Students may also contact the Graduate School Ombudsman (<http://gradschool.sc.edu/students/ombs.asp>) for consultation regarding any concerns or conflicts. The Ombudsman provides a confidential and independent resources for graduate students to help ensure a fair and equitable administration of the Graduate Program.

4 MASTERS (M.S.) DEGREE PROGRAM

The following procedures and examinations are required of all students enrolled in the M.S. degree program of the Department of Biological Sciences.

Year	All MS Students (Months noted for students starting Fall term; students starting Spring term may alter schedule accordingly)
1	Harassment and Discrimination Training Major Professor (no later than the end of the Fall Semester) Form M.S. Advisory (Thesis) Committee* (no later than April 15) Develop Curriculum and Submit Program of Study (no later than April 15) Submit IDP (due April 15) Qualifying exam (May)
2-3	Thesis and Defense** If transferring the Ph.D. Degree Program submit IDP with new major advisor (due April 15)

*Thesis Committee- see Graduate School Bulletin for guidelines

**Thesis and Defense = M.S. Comprehensive Examination

NOTE: If any deadlines in this Handbook are not met and an extension has not been granted by the Graduate Studies Committee, THE STUDENT MAY BE DISALLOWED FROM REGISTERING. Since students must register to qualify for financial support, a hold on registration would terminate such support. Please do your utmost to adhere to the schedules. Discuss any concerns with the Graduate Director.

4.1 MAJOR PROFESSOR (YEAR 1).

A. When: All students must have a Major Professor. In general, all students are accepted into a specific laboratory, and therefore have a Major Professor when they join the Department

B. How: As the relationship between student and Major Professor is by mutual agreement, it is formalized by submission of a completed *Selection of Major Professor* form (Appendix) to the Graduate Coordinator upon arrival or as soon as a major professor is chosen.

If a graduate student deems a change of Major Professor to be necessary, he/she should discuss the situation with the Graduate Director as soon as possible and will be strongly encouraged to discuss matters with the current Major Professor to resolve issues or to mitigate transition to a new laboratory. If personal friction is involved, the Department Chair will serve as an intermediary to arrange for a mutually satisfactory transition.

4.2 FORM A THESIS COMMITTEE (YEAR 1)

A. When: Students must form a M.S. Advisory (Thesis) Committee as early as possible but no later than the end of two academic semesters in residence (typically no later than April 15).

B. Who: The M.S. Advisory (Thesis) Committee consists of at least three members:

1. The Major Professor, who also serves as Chair of the Committee;
2. One member of the Biological Sciences Department whose interests are directly related to the student's research goals;
3. One member (from Biological Sciences or another Department at USC, Columbia) whose interests lie outside the student's research goals;

C. Duties: The Thesis Committee is responsible for approval of the student's Program of Study, and overseeing the thesis research program. The Thesis Committee must meet at least once a year to review the progress of the student. The Committee Chairperson is responsible for submitting an annual Individual Development Plan (Appendix) to the Graduate Director informing him/her of the student's progress toward graduation. If the student is not making satisfactory progress towards graduation it is the responsibility of the M.S. Advisory Committee to formulate a remediation plan to correct any deficiencies and a timeline for the implementation of this plan. If a remediation plan is deemed necessary, it should be included as part of the annual Individual Development Plan. The committee chair is responsible for notifying the Graduate Director, in writing or by email, of all official actions of the committee.

D. How: The Major Professor must notify the Graduate Director in writing (e.g. by e-mail) recommending faculty members for the student's Committee. The composition of the Committee is then approved by the Department Chair. If the composition of the Committee needs to be changed later, the major advisor should follow the same procedure outlined above and changes must be approved by the Graduate Director.

4.3 TAKE QUALIFYING EXAM (YEAR 1).

A. What: All graduate students are required by the University of South Carolina to pass a Qualifying Exam. The Qualifying Exam in the Dept. of Biological Sciences consists of a brief (5+ page) written and orally defended research plan, focusing on research planned for the immediate future and projected to a Ph.D. dissertation. This research plan should be presented in the general form of an NSF or NIH grant proposal (though of noted shorter length) and developed with the assistance of the student's Major Professor. The written research plan will be presented to and will be orally presented to and evaluated by an appropriate departmental faculty committee. Upon the successful completion of the Qualifying Exam the chair of the review committee must submit a *Biology Graduate Student Assessment Form* (Appendix) to the Graduate Program Coordinator indicating the student has passed the exam.

A major goal of the Qualifying Exam is to ensure that a dialogue is occurring between student and Major Professor and that the student has a plan in place for initiating their graduate research. Other goals are to ensure that students can develop a research plan and communicate that plan in writing and orally, and that students can research the literature of their area or field.

B. When: The Qualifying Exam will be scheduled at the end of the student's first year. For students entering Summer or Fall term (typical), the Qualifying Exam will be held in May of the following calendar year. For students Spring term, a Qualifying Exam may be held in December of the same year.

Failure to successfully complete the qualification procedures within the allotted period may result in dismissal from the M.S. program

4.4 DEVELOP CORE CURRICULUM AND PROGRAM OF STUDY

A. What: The M.S. graduate curriculum in Biological Sciences consists of coursework chosen by the student, in consultation with the Major Professor and Thesis Committee. Aside from a few required courses (MCDB program; see below), there are no general course requirements. A M.S. student must earn at least 30 credits at least half of which must be at the 700 and 800 levels (including 798). In addition, graduate students will be restricted to 12 hours of coursework over their graduate careers from any single department/ program outside of the Department of Biological Sciences; this restriction can be waived by the M.S. Advisory (Thesis) Committee. These requirements should be considered the minimum; additional requirements may be imposed by the Thesis Committee with the approval of the Department Chair.

REQUIRED COURSES FOR STUDENTS IN MCDB PROGRAM

A MINIMUM of two 600-700 – LEVEL LECTURE COURSES. CHOSEN IN CONSULTATION WITH THE ADVISOR AND/OR ADVISORY COMMITTEE (6 cr total):

Examples include, but not limited to: Biol 523 (Plant Development), Biol 614 (Stem Cells), 635 (Neurophysiology), 671 (Plant Responses to Environment), 711 (Nucleic Acids), 714 (Cell Biology), 717 (Biochemistry I), 718 (Biochemistry II), STAT 704 (Data Analysis)

BIOL 804 – RESEARCH SEMINAR* (1cr) – offered every Spring semester; must be taken two semesters (2 cr total)

** Biol 804 is a seminar-based course where students present their research. All 2nd year MS students are expected to present their research.*

B. How: Students choose a curriculum appropriate to their needs and interests, with consultation from their Major Professor and Committee. Note that the Committee must approve the Program of Study (see below); thus, the Program of Study (POS) becomes a contract between the Student and the University regarding the student's curriculum. Deviations from the POS must be reviewed and approved by the student's Committee prior to graduation.

C. Grades: The student must maintain a minimum GPR of 3.00 for each academic year. In addition, the student's GPR must be at least 3.00 for all courses attempted for graduate credit and on all courses numbered 700 or above. A student who accumulates more than 8 hours of C+ or lower in graduate courses will be dismissed from the degree program.

D. Credit for Previous Work: Curriculum requirements may be satisfied by coursework taken at another institution, approved by the student's Thesis Committee. The number of credit hours that can be transferred is limited to 12 (see the Graduate School Bulletin). Course work transferred for credit toward a master's degree must: 1) be from an accredited institution recognized by UofSC; 2) carry graduate credit with a grade of "B" or better (or equivalent marks if different grading system is used); and 3) be

dated within the six-year period for courses used in the master's program. NOTE: A "*Request for Transfer of Graduate Credit*" form must be submitted in order for transfer credit to be counted (visit Graduate Office for help). Transfer credits are not posted to the student's transcript until graduation and are not calculated into the student's cumulative GPA; acceptance of credit can be confirmed through the Graduate Office.

E. Program of Study: a formal Program of Study (POS) must be submitted to the Graduate School by the end of the first year (see below).

F. Course validation, revalidation: All coursework (including that taken at other institutions) must be completed within 6 years of the Comprehensive Examination (i.e. Thesis Defense). Courses that fall outside of this time frame and that were taken at USC can be revalidated as described above under Ph.D. Degree Program, which also describes requests for waivers of this requirement.

Any required lecture courses should be completed as early as possible, no later than April 15 of the student's first academic year.

4.5 SUBMIT PROGRAM OF STUDY

A. What: The *Program of Study* (POS) (required by the University) is a form on which are listed all courses taken (lecture and research) (1) which are approved by the student's M.S. Advisory (Thesis) Committee and (2) which sum to the credit requirement of the University (30 credits for M.S.). Because the POS is submitted in advance of graduating, courses planned to be taken (as well as those already taken or in progress) are entered. Most courses may be BIOL 798. While 3 credits of 799 (Thesis Preparation) are required, no more than 9 credits of 799 may be used to satisfy the 30-credit requirement to graduate.

The POS should include the following:

1. All coursework required to satisfy the above requirements (including up to 12 credits taken at other institutions (see "Credit for Previous Work" above) as approved by the student's Advisory Committee;
2. Additional coursework to total 30 hours;
3. The language to be used to satisfy the language requirement or a statement that this requirement is to be waived (see below);
4. The signatures of the student and the Chairperson of the M.S. Advisory (Thesis) Committee (representing the full Committee).

B. How: The form is available and online through the Graduate School:
<http://www.gradschool.sc.edu/forms> ("*Master's Program of Study*", Forms Library).

C. When: The POS can be submitted at any time but should be submitted no later than the end of the first year and must be submitted prior to taking the Comprehensive Exam (Thesis Defense). The POS can be submitted prior to completion of core curriculum.

D. Approvals: The POS must be approved (signed) by the Chairperson of the student's Thesis Committee (representing the full Committee) and by the Graduate Director and is then submitted to the Graduate School for final approval.

E. Revisions. An updated POS should be submitted if the curriculum deviates significantly from the initial version; changes (omission) of proposed lecture courses must be approved by the student's Thesis Committee.

4.5.1 Complete the Foreign Language Requirement

UofSC requires all candidates for the M.S. Degree to be proficient in a language other than English. However, the Department of Biological Sciences has permission to waive this requirement. "Waived" should be entered in the appropriate space on the *M.S. Program of Study Form* (available at: <http://gradschool.sc.edu/forms/Mastersprogramofstudy.pdf>).

4.6 SATISFY THE TEACHING REQUIREMENT

A M.S. student is required to complete one semester as a teaching assistant, in a Biology course. All students, irrespective of financial support (e.g., Research Assistantship, Fellowship), must complete this requirement. If the student has previous teaching experience at the collegiate level or its equivalent, he/she may request a waiver of this requirement from the Graduate Studies Committee.

4.7 PASS A COMPREHENSIVE EXAMINATION (FINAL)

A M.S. candidate must pass a Comprehensive Examination, which must have both a written and oral component. For M.S. students in Biological Sciences, the Thesis (written) and Thesis Defense (oral) serves as the M.S. Comprehensive Examination and is administered and evaluated by the student's M.S. Advisory (Thesis) Committee. Approval of the Comprehensive Examination requires at least two (of three) affirmative votes from the student's M.S. Advisory (Thesis) Committee. The Thesis Committee Chairperson is responsible for notifying the Graduate Director of the results of the vote, in writing (e.g. e-mail) and submitting the completed *Biology Graduate Student Assessment Form* (Appendix)

4.8 WRITE AND SUCCESSFULLY DEFEND A THESIS (FINAL)

A thesis based on original research is required of each M.S. candidate. This thesis and its oral defense must be approved by two of the three members of the M.S. Advisory (Thesis) Committee. The Thesis and its oral defense serve as the Comprehensive Exam. All Theses must be submitted for a formatting check and be approved prior to graduation. The Graduate School encourages students to submit their Thesis early, as a preliminary draft, in order to insure that the requirements are being met. Once the defense has taken place and all corrections are complete, the Thesis is submitted for final format approval.

Information regarding formatting and submission can be found here:

https://sc.edu/study/colleges_schools/graduate_school/academics/thesis_and_dissertation/index.php

4.9 SUPPLY A CURRICULUM VITAE AND FUTURE PLANS FORM

All students are asked to supply the Biology Graduate Office with a current Curriculum Vitae and a completed *Future Plans* form before being cleared for graduation.

4.10 TRANSFER TO THE PH.D. PROGRAM

An M.S. candidate may request transfer to the Ph.D. degree program at any time after entering the M.S. program. The student should write the Graduate Director a letter requesting the transfer and providing an explanation. In addition, the request must be supported by letters from the student's Major Professor. The Graduate Studies Committee will then vote on the request.

4.11 APPEALS PROCESS

The appeals process is the same as that described under the Ph.D. Degree Program (Sect. 3.13).

5 TRANSIENT GRADUATE STUDENTS

5.1 ADMISSION REQUIREMENTS

The category of transient student is reserved for students who are advanced degree candidates at some institution other than the University of South Carolina and who wish to matriculate in the Department of Biological Sciences to participate in particular courses or research programs which are not adequately represented in their own institutions.

To enroll in this capacity, an applicant must obtain the approval of their major professor and submit a formal supplication to the graduate school. He/she must meet all prerequisites to courses he/she wishes to take at the University of South Carolina.

6 TEACHING ASSISTANTS

6.1 DUTIES AND RESPONSIBILITIES

Once awarded a teaching assistantship, the assistant is an employee of the Department of Biological Sciences and is expected to perform their assigned duties in a professional manner. Assigned duties include teaching laboratory sections of any of numerous courses offered by the Department and/or performing other educationally related tasks, such as laboratory material preparation, examination proctoring and grading, and taking role in lecture sections. Each task is important, and assignments are made to assure that the overall operation of the Department is at maximum efficiency.

Teaching Assistants normally are assigned up to eight contact hours of laboratory teaching and are expected to prepare themselves and their laboratory materials adequately. In most cases the testing and grading within assigned laboratory sections are also the teaching assistant's duty but may be under the close direction of the professor of the course. Frequently, undergraduate students will request an assistant's time outside of class to clarify academic problems. A teaching assistant should be available, within reason, to grant such requests. From the above, it is obvious that an eight contact-hour assistantship will entail well over eight hours of work.

Teaching Assistants assigned duties other than in-class teaching are expected to render service comparable to the time spent in and out of class by teaching personnel (20 hour/week). Such assigned tasks are no less important than those of laboratory teachers. In fact, the adequacy of the classroom instruction is often directly related to the adequacy of out-of- class work.

Each assistant has a four-fold responsibility:

1. To the students.
2. To the professor of the course with which the student is associated.
3. To the Department of Biological Sciences.

4. To adhere to all FERPA and student privacy regulations. The FERPA regulations are Federally mandated and failure to adhere to these regulations could result in a revocation of Teaching Assistant support. Violation of these regulations can lead to termination of the Teaching Assistantship.

Questions, problems, or suggestions directly related to assigned jobs should be directed to the professor of the course or the Coordinator assigned to the course. Other problems or suggestions, dealing with broader aspects of teaching assistantships, should be directed to the Undergraduate Director.

TEACHING ASSISTANTS ARE INSTRUCTED TO AVOID ANY PERSONAL OR SOCIAL INVOLVEMENT WITH STUDENTS ENROLLED IN THEIR SECTIONS. SUCH INVOLVEMENT COMPROMISES THE ASSISTANT'S OBJECTIVITY AS AN INSTRUCTOR AND IS SUFFICIENT GROUNDS FOR TERMINATING THE ASSISTANTSHIP.

6.2 PERSONNEL ACTIONS

The Business Office (Human Resources Manager) is responsible for initiating all personnel actions regarding teaching assistants. Primarily, this paperwork includes employment verification for payment of stipends and for eligibility for special tuition rates. Any questions regarding these matters should be directed to the Business Office.

6.3 PAYMENT SCHEDULE

Teaching assistants are routinely paid on the fifteenth and the last working day of each month. Due to how the Payroll Office handles new hires, there is a 2-week delay in the issuance of the first paycheck. A graduate stipend is paid in nine equal checks each semester, regardless of the length of the semester. Summer TA stipends are paid in two checks on June 15 and 30 for Summer Session I, or as two checks on July 31 and August 15 for Summer Session II. Summer RA stipends are normally paid semi-monthly as during the regular semester. In addition, Health Insurance is provided and is paid in two installments at the start of the Fall and Spring semesters.

6.4 REAPPOINTMENT

Assistantships are awarded for one semester and may be re-awarded on a semester basis according to the following criteria.

1. Academic eligibility.
2. Evaluation of performance by the faculty
3. The assessment of the TA's immediate supervisor and the Director of Undergraduate Studies.
4. Departmental needs.
5. Years as a teaching assistant. (Generally, assistantships are granted for a maximum of two years for an M.S. candidate and four years for a Ph.D. candidate.)
6. The College of Arts and Sciences has instituted a maximum six years of College support as a TA. Appeals are considered under special circumstances.

Teaching assistants should be aware that failure to fulfill their assigned responsibilities may result in immediate termination of appointment, even during a semester.

Teaching assistantships for summer sessions are awarded to a limited number of students as departmental needs and budgetary considerations dictate. Most summer support depends upon grants or other funding sources.

6.5 REQUIRED REGISTRATION

Graduate School regulations specify that teaching and research assistantships can be held only by students in a graduate degree program, not by non-degree students. Graduate students, M.S. and Ph.D., holding regular (half-time) assistantships must register for at least 6 hours each semester during the academic year, prior to being formally hired as a Graduate assistant. An enrollment of 3 hours during the summer session is required for graduate students awarded summer TA's or RA's. Special enrollment (Z-status) where a student is allowed to register for only 1 credit is available under special circumstances or when a student has completed all requirements except for thesis or dissertation preparation.

https://sc.edu/study/colleges_schools/artsandsciences/biological_sciences/my_biology/forms/eform_documents/special_enrollment_z_status.pdf

6.6 OTHER EMPLOYMENT

In accordance with Graduate School Regulations, a graduate student may not hold any other position of employment while he/she is supported by a TA or RA without special permission from the student's Major Professor and the Chair of the Department.

7 RESEARCH ASSISTANTSHIPS

Graduate students may be supported on a Research Assistantship (RA) which is typically funded by a research grant. The funding of RA positions is entirely at the discretion of the Principal Investigator who is responsible for the expenditure of these funds. The Principle Investigator is responsible for supervising students supported on an RA and may establish, within the rules and regulations of the University, expectations for work hours and research duties for the student. If an RA has questions about these responsibilities that he/she is reluctant to discuss with the Principle Investigator he/she may discuss these issues with the Graduate Director or the Chair of the Department.

Fellowship requirements and funding vary. Graduate students supported on a fellowship should meet with the Graduate Student Coordinator and Human Resources Manager as soon as possible to discuss the proper disbursement of funds.

8 MISCELLANEOUS INFORMATION AND POLICIES

Room (Office) Assignments

The department will attempt to provide office and/or study space for all graduate students. Such space is limited, and it is Departmental policy that students with graduate assistantships will be given priority. Students with research assistantships normally will be placed in the area of their work. Students

without support will be located with their major professors, if such is agreeable to the professors concerned. The Graduate Director is responsible for these assignments.

Normally, the only furniture provided is a carrel (table with bookshelves) and chair. Office supplies are not furnished.

Keys

Keys to department facilities are issued on an as-required basis. The Building Coordinator is responsible for the control of keys.

In no case will a key be issued to a faculty member's office or research laboratory without specific authorization by the faculty member. Under no circumstance is a key to be duplicated or loaned to other persons. If a key is lost, such should be reported promptly to the Business Office.

Areas of Limited Access

Access is limited to some areas within the Department (e.g., main Biology Office, greenhouse). When use of such facilities is necessary, see the Business Office.

Equipment and Facilities

If any piece of equipment is in improper working condition or is missing, the appropriate staff or faculty member should be notified. Students should always be alert for conditions that warrant repair or are unsafe.

No area should be left unsecured. Thefts, while not common, may nonetheless occur. Precautions must be taken to prevent loss of personal and departmental items.

Telephones

A number of laboratories still have land-line telephones. These phones are limited to on-campus calls or calls within the greater Columbia area.

Mail

The department provides mailboxes for graduate students in the mailroom next door to CLS 401. Mail is delivered and picked up twice a day. Outgoing mail should be placed in the appropriate trays near the faculty mailboxes in CLS 401. Students are to furnish their own postage stamps.

Safety Regulations

Teaching assistants are responsible for the safe operation of the laboratories they teach. Proper procedures for using volatile and flammable solvents, explosive or poisonous chemicals, and radioactive materials must be followed. A fire extinguisher is located in each teaching laboratory, and first-aid kits are in CLS 401 and most teaching labs. Be alerted that a teaching assistant is legally responsible and may be liable for any accident that occurs their laboratory section.

The guiding document for all safety matters is the USC Health and Safety Manual. Several copies are available in the department. Graduate students cannot use radioisotopes until they have completed an instructional course offered by the Safety Services Office. Your major professor is responsible for alerting you to any unusual hazards.

Accidents and Injuries

Accidents that pose a threat to persons or property should be reported at once to the Department Office. Minor injuries may be treated using first aid kits found in CLS 401 or in various labs. If professional attention is needed, the injured should go or be taken to the Health Center for treatment. Students who are injured while on the job are covered under Workman's Compensation.

Fire extinguishers are located in all labs and in the halls. Students should be familiar with their use. When an extinguisher is used, the Business Office should be notified, so that the extinguisher can be refilled.

Photocopiers

The photocopiers in the Department are for official use only. They are not to be used for theses, dissertations, personal notes, or other personal papers.

Computers

Departmental and laboratory computers are for academic use.

Administrative Assistance

The office staff does not provide secretarial services for graduate students. Teaching assistants are expected to prepare and duplicate the exams and materials for their own lab sections. Any material requiring secretarial assistance must be submitted by your faculty supervisor.

9 GRADUATE ASSOCIATION OF BIOLOGICAL SCIENCES (GABS)

The Graduate Association of Biological Sciences draws its membership from graduate students in the life sciences. GABS is both a professional and social organization. Active participation in GABS is highly recommended to Graduate Students in the Biological Sciences as it promotes an active exchange of scientific ideas, broadening of the individual's academic experience, and promotes a positive social environment.

Academically, the group hosts an annual invited speaker, selected by the membership. GABS also organizes and conducts a graduate student symposium that includes presentations of on-going research by student members. Group members are also active participants in the recruitment of new graduate students and faculty, and assist the Department in various capacities. The GABS executive officers are elected each year by the membership and the president acts as the graduate student representative at faculty meetings.

New graduate students are especially encouraged to become active in the GABS organization, as this provides an excellent means of establishing oneself as a member of the graduate student community of both the Department and the University. More information about the organization can be found on the GABS website: <http://www.biol.sc.edu/gradstudies/gabs/index.html>

10 DIRECTORY OF KEY PERSONNEL

Position	Name and Address	Tel. #	Responsibilities
Chair, Biological Sciences Dept.	Dr. Tammi Richardson CLS 401/CLS 705 richardson@biol.sc.edu	7-6389 7-2269	Departmental policies, special problems.
Director of Graduate Studies	Dr. David Reisman CLS 513 reisman@biol.sc.edu	7-8108	Direction of graduate program, interpretation of regulations, information.
Graduate Program Coordinator	Mr. William Avant CLS 401 wavant@email.sc.edu	7-2755	Handles all records, progress reports and general administration
Undergraduate Director	Dr. Amanda Zeigler CLS 401 polsona@mailbox.sc.edu	7-2518	Assigns TA teaching schedules.
Business Manager	Mr. Garrett Faulk CLS 401 faulkgd@email.sc.edu	7-1769	General business administration.
Human Resources Coordinator		7-4142	I-9, payroll, keys, pay issues, hiring
Network Manager	Mr. Lee Hallman CLS 202 CASSUPPT@mailbox.sc.edu		Email and web accounts, network support, classroom and office computer support.
Electronics Technician	Mr. Eric McKeown CLS 603A ericm@mailbox.sc.edu	7-7163	Electrical and mechanical emergencies and problems, electrical/mechanical repair.
Chair, Ecology and Evolution Groups	Dr. Jeff Dudycha CLS 608 dudycha@biol.sc.edu	7-3987	Coordinates Activities of this Research Group
Chair, Molecular, Cellular and Developmental Biology Groups (MCDB)	Dr. Alan Waldman CLS 309 awaldman@biol.sc.edu Dr. Hexin Chen PSC 621 chen53@mailbox.sc.edu	7-8405 7-2928	Coordinates Activities of this Research Group
Coordinator of first year rotations	Dr Fabienne Poulain PSC 517 fpoulain@mailbox.sc.edu	7-0713	Coordinates rotations for first year Ph.D. students
President of GABS	Elected annually, see GABS website		Coordinates Activities of GABS

11 ACCESS TO GRADUATE STUDENT EDUCATIONAL RECORDS

Access to graduate student educational records of the Department of Biological Sciences is regulated in accordance with the “Notification of Student Rights under FERPA” published in the Carolina Bulletin and in the Carolina Community Student Handbook. The following guidelines include the main points of the policy but be aware that the entire policy will be followed.

Most of the information in student records is confidential and may not be made public nor released to outside parties except as noted in the “Notification of Students Rights under FERPA”, unless the student requests such release in writing. Department faculty, administrators, and appropriate staff have direct access to student educational records in the exercise of their academic and administrative duties but may not remove graduate records from the office except according to procedures established by the graduate records clerk. Graduate students may examine their own educational records apart from parental financial records, any confidential letters of recommendation filed before November 12, 1974, and any letters of recommendation filed since that date to which the student has signed a waiver of access.

Materials not included in educational records are unshared personal notes and non- student employment records. Law enforcement records, medical and psychiatric records, and counseling records are not kept in the Department of Biological Sciences.

Students must follow the procedures outlined below to obtain access to their educational records.

11.1 PROCEDURES FOR ACCESS TO STUDENT RECORDS

Each enrolled student or former student of the University of South Carolina is accorded the right to inspect and review official educational records or files of the University directly related to that student, other than materials to which the student has waived access. The following procedures will be followed:

Responsibility	Action
Student	Request access to a specific record or file at the office where the file is maintained.
Program Coordinator/ Graduate Office	Initiate a Request for <i>Access to Student Records</i> form in duplicate, filling in the information as supplied by the student Submit the application to a designated department officer for approval. When a request is approved, make an appointment between the designated staff member and the graduate student to examine the requested records.
Graduate Coordinator	Review the record with the student right away, if possible, or arrange a convenient time to review the record if it is not immediately available. When the documents have been reviewed, obtain the signature of the student on the application indicating that access to the record was granted.

	Sign the application form indicating that the records were reviewed by the student in their presence. Distribute copies of the application form: Copy 1 - Student's file. Copy 2 - Student.
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A student may obtain certain types of information contained in their records by making inquiry through the graduate director, graduate records clerk, or the student's major professor. Such inquiries should be limited to specific information such as dates, grades, or the presence or absence of pertinent materials. No information, not otherwise accessible to the student, will be communicated to them through such an inquiry.

12 APPENDIX

(Copies of all of the Forms listed in this Appendix can be found in the Graduate Studies Office, CLS 401 or on the Biology web site:

https://sc.edu/study/colleges_schools/artsandsciences/biological_sciences/my_biology/forms/index.php)

1. Guidelines for Optional First Year Rotations in MCDB
2. Laboratory Rotation Agreement
3. Evaluation of Laboratory Rotation

Guidelines for optional first year rotations for MCDB PhD students in the Biological Sciences Graduate Program

- 1) Dr. Fabienne Poulain serves as the contact person for rotating MCDB students. She will ensure timely transitions and provide help identifying labs for rotations. Dr Poulain will be encouraged to draft assistance of other faculty in mentoring the rotation students during the first year.
- 2) Students may participate in up to 3 rotations during the first academic year. If a good student/mentor match is established after the first or second rotation a student may join that lab without the need of additional rotations.
- 3) Upon receiving an acceptance letter, a student should provide a list of five faculty members that match their research interests. It is the responsibility of the student to contact a faculty member and secure a first rotation lab BEFORE the first semester begins. A rotation agreement form will be completed and signed by both the student and PI and returned to Dr. Poulain by email before any rotation starts.
- 4) It is the responsibility of the student to secure a suitable lab for pursuing their PhD during the first year. Faculty mentors will complete an evaluation form to assess student progress and potential for success and provide guidance to students. There may be extreme circumstances that justify a 4th rotation. In this case the student would appeal to the Graduate Studies Committee and the Department Chair, who will consult with Dr. Poulain and mentors for previous 3 rotations. Both the precipitating reasons and performance on previous rotations will be taken into consideration.
- 5) Students will be normally be supported by TA during the rotations.
- 6) All MCDB students, including rotation students, will complete their qualifying exams at the end of the Spring semester or during the Summer semester of their first year.

LABORATORY ROTATION AGREEMENT

This form must be completed by **both the student and the PI** and be returned to Dr. Poulain by email (fpoulain@mailbox.sc.edu) **BEFORE** the start of the rotation. Laboratory rotations are an important part of the Biology Graduate Program at the University of South Carolina, giving students the opportunity to experience different research projects and allowing the faculty to assess the interests and aptitude of the students. To facilitate and optimize the rotation experience for both the student and the faculty, it is important that they meet prior to the start of the rotation to discuss expectations, goals, requirements and laboratory guidelines.

STUDENT INFORMATION:	
Student Name:	Student email:
Rotation PI Name:	Rotation PI email:
Rotation start date:	Rotation end date:
ROTATION INFORMATION	
Who will directly supervise the student?	
Hours per week the student is expected to be in lab: <i>(Expectations should be discussed regarding the time needed for coursework/studying for exams)</i>	
Laboratory activities expected of the student:	
<i>Were laboratory guidelines/policies explained to the student?</i> <input type="checkbox"/> yes <input type="checkbox"/> no <i>Has the student been provided with a reading list?</i> <input type="checkbox"/> yes <input type="checkbox"/> no <i>Is the student expected to attend lab meetings?</i> <input type="checkbox"/> yes <input type="checkbox"/> no <i>Will the student be required to give a presentation or report before the end of the rotation?</i> <input type="checkbox"/> yes <input type="checkbox"/> no <i>Does the student have to participate in seminars?</i> <input type="checkbox"/> yes <input type="checkbox"/> no	
Goals for the rotation: <i>At the end of this rotation, the student will meet with the rotation PI and discuss the Rotation Evaluation Form.</i>	
BY SIGNATURE, I VERIFY THAT I HAVE DISCUSSED THE POSSIBILITY OF PROVIDING SPACE AND FINANCIAL SUPPORT, SHOULD THIS STUDENT AND I WISH TO CONSIDER A THESIS DEVELOPMENT AFTER THE ROTATION PERIOD	
<input type="checkbox"/> YES (if the rotation works out, I will be able to accept this student into my laboratory) <input type="checkbox"/> VERY LIKELY (if the rotation works out, I will very likely be able to accept this student into my laboratory) <input type="checkbox"/> POSSIBLY (if the rotation works out, I will very possibly be able to accept this student into my laboratory) I will know definitively by _____ <input type="checkbox"/> NO (I will NOT be able to accept this student into my laboratory)	
Rotation PI: _____ Date: _____	
Student PI: _____	Date: _____

EVALUATION OF LABORATORY ROTATION

This form must be completed by the PI and be returned to Dr. Poulain by email (fpoulain@mailbox.sc.edu) at the end of the rotation. It will be kept by the Graduate Studies Committee and may be shared with faculty during lab selection process.

The student should **attach a written one-page summary/progress report** of the research project explaining the progress made and the challenges faced during the rotation. The following checklist should be completed by the mentor and **discussed with the student (1 is excellent, 5 is poor)**.

Comments should be constructive. Both student and PI sign the form to indicate discussion has taken place.

STUDENT INFORMATION:						
Student Name:			Student Email:			
Rotation PI Name:			Rotation PI Email:			
Rotation start date:			Rotation end date:			
EVALUATION CHECKLIST	1	2	3	4	5	unable to evaluate, reason
Ability to follow instructions						
Ability to design experiments						
Ability to carry out experimental protocols						
Technical ability in lab						
Evaluation/interpretation of data						
Record-keeping						
Effort applied to the project						
Interest/motivation level						
Communication skills						
Interaction with laboratory personnel						
Improvement during rotation						
OVERALL EVALUATION						
AREA(S) OF STRENGTH:						
AREA(S) THAT NEED IMPROVEMENT:						
Did the student give a presentation or written report at the end of the rotation? <input type="checkbox"/> yes <input type="checkbox"/> no						
GENERAL COMMENTS:						
SIGNATURES						
Rotation PI:					Date:	
Student PI:					Date:	