THE UNIVERSITY OF MISSISSIPPI, DEPARTMENT OF BIOLOGY

GRADUATE PROGRAM IN BIOLOGICAL SCIENCES

GRADUATE POLICIES

2024-2025

A. POLICIES PERTAINING TO ALL GRADUATE STUDENTS

A1. General Information

Chair of the Department of Biology: Dr. Sixue Chen, schen8@olemiss.edu

Associate Chair and Graduate Program Coordinator (GPC): Dr. Jason Hoeksema, hoeksema@olemiss.edu

Graduate Studies Committee (GSC; 2023-2024): Drs. Hoeksema, Curtis, Day, Garrick

Website and Information: Information on the Department of Biology graduate program is available at https://biology.olemiss.edu/programs/graduate/. Department of Biology graduate student forms are available at https://biology.olemiss.edu/programs/graduate/graduate-forms/, while Graduate School forms are available at https://gradschool.olemiss.edu/current-students/forms-and-manuals-library/. It is the graduate student's responsibility to make sure that any required forms are submitted in advance of stated deadlines. Note that when departmental or GPC approval is required for a form, that form should be submitted to the department at least one week ahead of the Graduate School deadline.

A2. Application and Admission Procedure

The Department of Biology of the University of Mississippi offers programs of graduate study leading to the Master of Science and Doctor of Philosophy degrees in Biological Science. The Department of Biology welcomes graduate applications from individuals with diverse backgrounds, experiences, and viewpoints. Applicants to the graduate program in the Department of Biology should have a strong background in the biological sciences including coursework in general biology, genetics, ecology or physiology, chemistry, and mathematics. Applicants are strongly encouraged to consider Fall admission, and for regular Fall admission, application materials must be received by January 15. Applications received after this time will only be considered if spaces are available. Spring admission is rarer and all materials for applicants applying for Spring admission must be received by October 15.

Graduate students are admitted to the Department of Biology in one of four categories, and students should clearly indicate the category to which they are applying in their application materials.

Ph.D. student with a specific Major Advisor

Ph.D. student on rotation system (no initial Major Advisor)

M.S. student with a specific Major Advisor (thesis option)

M.S. student with a specific Major Advisor (non-thesis option)

Ph.D. student with a specific Major Advisor

This category is for prospective Ph.D. students who have identified a member of the graduate faculty to be their Major Advisor, who will become their Dissertation Director. Applicants should have a specific research area in mind and should contact Biology faculty who could potentially serve as their Major Advisor before submitting an application. The applicant should identify the Major Advisor in their submitted statement of purpose. The prospective Major Advisor is responsible for placing a letter of support in the applicant’s file, describing why the student should be admitted into the program, how the student’s research will relate to that of the Major Advisor’s current laboratory/research group, and expectations for the student’s success in the Graduate Program.

While Associate Graduate Faculty cannot chair Ph.D. dissertation committees, Ph.D. applicants intending to work with a specific tenured/tenure-track Associate Graduate Faculty member should still list that faculty member as their intended Major Advisor and contact them ahead of applying.

Ph.D. student on rotation system (no initial Major Advisor)

Ph.D. students admitted to the graduate program via the rotation system should expect to be involved in the research of three different labs during their first year in the program, with the requirement of having a Major Advisor in place by the end of their first year. Applicants should contact potential rotation faculty before applying and identify at least three Biology graduate faculty who are willing to host them during their rotation in their Statement of Purpose. Applicants should be aware that some faculty may not be available to participate in the rotation system. The GSC will only review applications from rotation students who have agreements from at least three Biology faculty for lab rotations.

If admitted, the GPC will serve as the student's temporary advisor for their first year and will establish a rotation plan in consultation with the student, the GSC and individual faculty.

Students should expect to start their first rotation during their first semester. Typically, a rotation student should be within a lab for 4-5 weeks (approximately half a semester) before rotating into a new lab. Following the completion of all rotations, the student will write a summary of their rotation experience, which also states their preferred choice of permanent Major Advisor as well as alternates. This summary is submitted to the GPC and GSC. While the GSC will endeavor to place students with their preferred Major Advisor, after consultation with the faculty involved, students may be placed with alternate choices. Rotation students must have a Major Advisor in place by the end of their first academic year. If a student wishes to end their rotation early and continue to work with a specific Major Advisor, all parties (student, all faculty included in their rotation, GPC) must agree.

M.S. student with a specific Major Advisor (thesis option)

This category is for prospective M.S. students who have identified a member of the graduate faculty to be their Major Advisor, who will become their Thesis Director. Applicants should have a specific research area in mind and should contact Biology faculty who could potentially serve as their Major Advisor before submitting an application. The applicant should identify that Major Advisor in their submitted statement of purpose. The prospective Major Advisor is responsible for placing a letter of support in the applicant's file, describing why the student should be admitted into the program, how the student's research will relate to that of the Major Advisor's current laboratory/research group, and expectations for the student's success in the Graduate Program.

M.S. student with a specific Major Advisor (non-thesis option)

This category is for prospective M.S. students who have identified a member of the graduate faculty to be their Major Advisor, who will provide guidance during their pursuit of a non-thesis M.S. degree. Applicants should contact Biology faculty who could potentially serve as their Major Advisor before submitting an application. The applicant should identify that Major Advisor in their submitted statement of purpose. The prospective Major Advisor is responsible for placing a letter of support in the applicant's file, indicating their willingness to serve in this roll.

Application process

The GSC reviews applicants and makes recommendations for admission and awarding of assistantships to the Department Chair. For full consideration, applicants for Fall admission must have all of their materials submitted through the Graduate School online submission system and received by the

Department of Biology by January 15. Because testing agencies, universities, and references often take 2-3 weeks to submit materials, applicants are advised to make requests for test scores, transcripts, and letters of reference well ahead of the deadline. Applications that are incomplete in the Department of Biology as of January 15 will not be considered initially and will be considered as late applications. Late applications are only considered if admission places or assistantships are still available; such applications are typically reviewed by the GSC in March or April. While we appreciate early decisions from applicants who are offered admission and/or assistantships, the Department of Biology supports the Council of Graduate Schools' resolution to allow students offered admission to graduate programs up to April 15 to make decisions on offers of admission.

Applications for Spring admission are considered on a case-by-case basis but are usually only considered when the GSC determines that the applicant would be a competitive applicant for regular Fall admission. The Spring application deadline to have all materials received by the Department of Biology is October 15.

Applicants must submit online to the Graduate School all of the following:

1) An application.
2) A 1-2 page Statement of Background and Future Goals. In this statement, applicants should describe any prior research experience, prior relevant coursework, motivation for pursuing this graduate degree, and how it relates to career goals.
3) A 1-2 page Statement of Research Interests and Potential Research Questions. Applicants should use this statement as an opportunity to express future interests and ideas. If they have a prior graduate degree, they should clarify how/whether they want to continue that work or go in a different direction. This statement should clearly state the intended major advisor (or labs, for rotation applicants), in **bold**, at the beginning of the statement. If they've discussed potential projects with a prospective advisor, those should be discussed. Applicants to the rotation program should express goals for the rotation process, and describe any potential ideas or research interests they might want to pursue.
4) A CV or resume.
5) Two letters of recommendation, preferably from individuals who can comment on the applicant's research experience and/or potential for conducting research in the life sciences.
6) Official transcripts of all undergraduate and graduate work.
7) International applicants must also submit English language proficiency test scores (e.g., TOEFL, IELTS, or PTE-A) as per University policy.

Applicants are only admitted if there is departmental financial support for their graduate studies, or if the prospective student specifically informs the GPC how they will be supporting their graduate education. Departmental support can be graduate research assistantships funded by grants to specific faculty, or through departmental teaching assistantships, which are awarded on a competitive basis to applicants to the Ph.D. program and to applicants to the M.S. program (thesis option only). Assistantship support is not provided to newly admitted students entering into the M.S. program with the non-thesis option, although current students holding an assistantship can maintain their assistantship for one semester when switching into the M.S. non-thesis program. Graduate assistantships include a tuition waiver, subsidized health insurance, and stipend support. All components of the application are used by the GSC to determine eligibility for assistantships. Because these assistantships are competitive, the Department of Biology recommends that applicants have an undergraduate GPA of at least 3.0 (on a 4.0 scale) and a strong research background. However, meeting these criteria does not guarantee that a departmental assistantship will be awarded or that admission to the graduate program will be approved. Applicants may also be eligible for additional fellowships and scholarships that are available through the Graduate School.

Admission into the Department of Biology graduate program is based on the recommendation of the GSC who will assess all application materials and make a recommendation to the Chair of the Department of Biology, who makes the final decision on admission.

A3. Annual Degree Progress Reports

All graduate students are assessed annually by the GSC for satisfactory progress toward the degree. Each student is responsible for submitting an Annual Degree Progress Tracking Form by December 31 each year. A student who is deemed by the GSC to be making unsatisfactory progress toward the degree, may be denied a graduate assistantship for the next academic year, and be subject to other disciplinary action at the discretion of the Department Chair.

The student's Degree Committee may require reports on the student's thesis or dissertation research and progress toward the degree. The committee may recommend that the student not be allowed to continue in the program if the student fails to make satisfactory progress toward completion of degree requirements.

A4. Academic Standing

A graduate student must have a 3.0 GPA on all course work that is presented toward completion of a degree. A student is in good standing with respect to registration for an upcoming semester if he or she makes a 3.0 GPA on course work for the preceding Fall or Spring regular semester. A student whose grade point average is less than 3.0 for any regular semester will be placed on probation, and a dean's registration hold will be applied to the student's record. Such a student will not be allowed to register unless the department makes an affirmative recommendation to the Graduate Dean, who will then temporarily lift the hold. Without a written, favorable recommendation from the chair or graduate program coordinator of a department/program, a student on probation will be converted to an inactive status and must re-apply and be re-admitted to the graduate program in order to continue in the same or other program. In addition, a student may be dismissed from a graduate program or have his or her admission status changed (e.g., from full-standing to non-degree seeking) if the student fails to meet specific course requirements of the department/program. In addition to graded courses, a graduate student is expected to pass examinations and perform research or other creative activities. A student may be dismissed from a graduate program if he or she fails to meet such expectations of the program.

A5. Department Checkout

Upon completion of graduate study, graduating students must complete the student check out form and submit it to the Department of Biology office along with keys to the building, labs, and classrooms, and any other materials that are University property. Graduating students must complete an assessment of their graduate advising experience. Graduate students who had office or desk space must also clear their desk/space of any items, and must complete the following professional obligations regarding research in their advisor's laboratory:

1. Before graduation, the student will give to the advisor all data; notebooks; research materials (with inventory of locations); computer programs, scripts, and macros; and research protocols from research conducted under the advisor during the degree, arranged in a manner that enables continuation of the project. The copyrights for research products may belong to the University of Mississippi (please see the University's Copyright policy here). If the student conducted independent research as a side project, without the participation of the advisor, while they were a student in the laboratory, the student has the right to publish those research results without the advisor.

2. The student must clean their lab bench and/or research space and arrange for proper disposal of all chemical and biological waste.

Failure to meet these requirements may result in a restriction on graduation.

A6. Dissolution of a graduate student/faculty advisor research relationship

Overview. Either the graduate student or the faculty advisor may dissolve a student/advisor research relationship with which they are dissatisfied. It is important that both parties respect the needs of the other. The following policies are designed to help accomplish this outcome in a professional manner. Cases that involve academic integrity violations or termination for cause are treated separately, in accordance with the policies and procedures of the Graduate School and the University of Mississippi.

Dissolution initiated by the student. A graduate student may wish to dissolve the student/advisor relationship for reasons that may include, but are not limited to, inadequate mentoring or support, lack of availability, and interpersonal mismatch. A student who wants to leave a research group is encouraged to discuss their concerns with their advisor and the Graduate Program Coordinator before initiating the dissolution. Such a discussion can be confidential at the student's request. A student who wants to leave a research group should give the faculty advisor at least 30 days written notice. During this period, the research work should be brought to a point where it could easily be passed on to a new person. Students should be aware that it is not possible to make or break Teaching Assistantship appointments in mid-semester and should plan accordingly. Students should also be aware that Research Assistantship funding provided be an advisor will likely not be available after dissolution of the research relationship with that advisor, and replacement of that funding with a Teaching Assistantship may not always be possible; this should be discussed with the Graduate Program Coordinator before a decision is made.

Dissolution initiated by the faculty advisor. A faculty advisor may wish to dissolve the student/advisor relationship for reasons that may include, but are not limited to, dissatisfaction with the research effort of the student, failure of the student to follow laboratory procedures as specified by the advisor, and failure of the student to follow appropriate safety procedures. The advisor must make every effort at an early stage to communicate to the student the concerns he/she may have about the student's performance. If the deficiencies persist after the initial communication, the faculty advisor should identify to the student *in writing* the unsatisfactory aspects of the student's performance and allow the student a reasonable time (at least 30 days) to correct the deficiencies. The student and advisor must then meet. The purpose of the meeting is to discuss the document, identify the concerns, and describe the steps that must be taken to address them. The Graduate Program Coordinator or his/her designee, and optionally a faculty advocate nominated by the graduate student, shall attend the meeting, and shall be provided with a copy of the document. If the deficiencies are corrected in the probationary period, the faculty advisor should notify the student in writing that he/she is no longer on probation. A copy of the letter should be sent to the Graduate Program Coordinator. If the deficiencies persist at the end of the probationary period, it is the prerogative of the research advisor to terminate the student/advisor relationship. The procedure is as follows:

a. The faculty member must notify the student in writing, giving reasons for the dismissal and indicating a formal termination date at least 30 days after the date of the dismissal letter. A copy of the letter should be sent to the Graduate Program Coordinator.

b. If the student is being paid as an RA, the student will be kept on the payroll for 30 days after the date of the dismissal letter to allow time for the student to obtain a new research director, unless a new research advisor agrees to put the student on payroll prior to the 30-day time period. Faculty should take into consideration that students generally cannot be assigned to a TA after the start of a semester and may need to delay the dismissal date for that reason.

c. If the student is being paid as a TA, the department will continue the current TA support until the end of the termination semester, contingent on the student meeting the obligations of the TA position.

d. Ph.D. students who are dismissed from their research group may opt to obtain a Master's Degree if they meet the departmental and university requirements for that degree.

Procedures for students who change research groups. A student who changes research groups must work with the GPC to officially update their advisor in the Graduate School's records. At this time, the student, in consultation with their new advisor, should consider reconstituting the student's supervisory committee if necessary, e.g. if they have switched primary research areas. If the student has already completed the research prospectus, the student must, within four months of joining the new research group, submit to the supervisory committee a brief (1-3 page) summary outlining the goals of the new project and the methods to be applied. Based on this preliminary information, the committee may decide to call for a brief oral presentation of the new project by the student. An oral presentation would be considered normal for a student who switches primary research areas or makes a substantial change in their research direction. Failure to obtain approval from the supervisory committee within five months of switching advisors will result in loss of good standing for the student.

Student obligations when changing research groups. It is the student's obligation to conclude their research in a professional manner that will allow the work to be continued by another researcher. Specific obligations include:

1. The student will give to the former advisor all data, notebooks, research materials, and research protocols from research conducted under the direction of the former advisor, arranged in a manner that enables continuation of the project.
2. All such materials should be returned to the former research advisor before the student is put on another faculty member's payroll.
3. The student must prepare an inventory with the locations of such research materials and this inventory should be given to the former advisor.
4. The student must clean their lab bench and/or research space and arrange for proper disposal of all chemical and biological waste.
5. Students must fulfill these obligations before they begin their research in a new lab group.

Publication of research after dissolution of the student/faculty advisor relationship. When a student changes research groups, if the student made substantial contributions to a research project in the former research group that would normally warrant authorship on resulting publications, the former advisor must offer the student the opportunity to participate as a co-author in any subsequent publications resulting from that project, provided the student fulfills their professional obligations when changing research groups. Neither party should attempt to publish research conducted under the former advisor-student relationship, without the consent and participation of the other. If the student conducted independent research as a side project, without the participation of the former advisor, while they were a student in the former laboratory, the student has the right to publish those research results without the former advisor.

B. POLICIES PERTAINING TO A MASTER OF SCIENCE (M.S.) IN BIOLOGICAL SCIENCE (THESIS OPTION)

Policies of the Department of Biology are in addition to general University policies stated by the Graduate School. Where these policies differ, the policy with the more stringent requirements must be followed. It is the student's responsibility to be familiar with the policies of the Graduate School (https://gradschool.olemiss.edu/home/).

B1. Admission and Major Advisor (Thesis Director)

Students are admitted into the Master of Science program following the policies in Section A2. Admission to the M.S. program requires the prior agreement of a Department of Biology faculty member to be the students Major Advisor, who will be their Thesis Director. The Major Advisor (Thesis Director) must be a member of the Graduate Faculty in the Department of Biology.

B2. Preliminary Meeting with the Department Chair

New graduate students are required to meet with the Department Chair soon after starting in the program, usually during the first two weeks of enrollment. The student is responsible for scheduling this meeting with the Department office.

B3. Formation of M.S. Degree Committee

The M.S. Degree Committee will determine course and other requirements (training, publications, manuscripts submitted, presentations etc.) deemed necessary to satisfy the minimum Departmental and University requirements for the degree. Each M.S. student is required to meet with their M.S. Degree Committee at least once per year, however this meeting may be combined with other requirements (e.g., preliminary meeting with committee, prospectus defense, thesis defense).

The M.S. Degree Committee must consist of three members of the Graduate Faculty from the Department of Biology (one of whom is the Major Advisor). Additional committee members are permitted but they must be Graduate Faculty at the University of Mississippi.

The committee should be formed and approved in the first or second semester of enrollment, or as soon thereafter as possible. The student, after consultation with the Major Advisor, will determine if prospective committee members are willing to serve. With the agreement of all committee members, the student requests to form the committee through myOleMiss (https://gradschool.olemiss.edu/appointing-student-advisory-committees-student-version/). The request is then reviewed by the GPC of the Department of Biology, followed by the Graduate School.

Any committee member, including the Major Advisor, may relinquish membership at will, but must inform the student, the committee, the Graduate Program Coordinator, and the Department Chair by email prior to resigning.

B4. Preliminary Meeting with the M.S. Degree Committee and Degree Requirement Form

Each student must meet with their M.S. Degree Committee soon after the committee is formed. The meeting shall be scheduled by the student and Major Advisor.

The purposes of the meeting will be to ascertain if there are deficiencies in the educational background of the student that need to be addressed, to determine specific degree requirements, and to discuss a plan of study for the degree. A departmental "M.S. Degree Requirement Form" (download from https://biology.olemiss.edu/programs/graduate/graduate-forms/ and completed digitally) must be completed by the student and approved soon after this meeting. The Major Advisor or committee may impose additional requirements beyond those required by the Department of Biology or Graduate School as considered necessary for proper training of the student and these must be stated on the form. Approved copies are retained by the Department and should also be retained by the Major Advisor and the student.

Should the M.S. Degree Committee membership change, a new M.S. Degree Requirement Form must be completed and approved by the new committee.

B5. Course Requirements and Enrollment

A minimum of 30 hours of graduate credit acceptable to the M.S. Degree Committee is required. M.S. students are required to take a minimum of 24 hours of coursework, of which at least 18 hours must be formal classroom courses; courses that require regular attendance, study assignments, final examinations, and letter grades. Directed Study (BISC 679), Seminar (BISC 691 or 692), and Thesis (BISC 697) are not considered formal courses.

M.S. students must take 1 hour of BISC 691 (seminar) during the semester in which they present their final thesis defense and take a minimum of 6 hours of Thesis (BISC 697) during their graduate studies.

Courses must be approved by the M.S. Degree Committee and listed on the M.S. Degree Requirement Form (https://biology.olemiss.edu/wp-content/uploads/sites/101/2020/12/Masters-Degree-Reqrmt-Form-July-2020-fillable.pdf) and submitted to the department office after the first Degree Committee meeting. If the Degree Committee changes, a new M.S. Degree Requirement Form, approved by the new committee, must be submitted.

Up to 6 hours of graduate credit at a grade of B or higher may be transferred from another institution with the approval of the M.S. Degree Committee, Graduate Program Coordinator, and Graduate School (requires Graduate School form GS3; https://gradschool.olemiss.edu/current-students/forms-and-manuals-library/).

Only course grades of C or higher are acceptable for graduate credit. If a student obtains a grade lower than a C in a course that is listed on their M.S. Degree Requirement Form they must retake the course or submit a new M.S. Degree Requirement Form that replaces that course with another. A cumulative GPA of 3.0 must be maintained in all graduate work undertaken to remain in good academic standing. A student is in good standing with respect to registration for an upcoming semester if he or she makes a 3.0 GPA on course work for the preceding Fall or Spring regular semester. A student whose grade point average is less than 3.0 for any regular semester will be placed on probation, and a dean's registration hold will be applied to the student's record. Such a student will not be allowed to register unless the academic department/program makes an affirmative recommendation to the Graduate Dean, who will then temporarily lift the hold.

The M.S. degree does not require continuous enrollment, but all requirements must be completed within six years of starting in the program.

B6. Research Prospectus, Presentation, and Defense

Prior to initiating the bulk of their thesis research, the student must prepare a written research prospectus which is endorsed by all members of the M.S. Degree Committee and filed with the Department of Biology. The M.S. prospectus outlines the students proposed thesis research including background, a

research plan, and significance of the thesis project. The M.S. prospectus is typically completed and defended during the second or third semester of enrollment.

M.S. students are required to present their prospectus research to Biology faculty and students in an oral seminar format. The seminar should be relatively brief, 15-20 minutes, with the intent of sharing the research content and inviting input from faculty and students. The student is responsible for scheduling the seminar and subsequent defense with the Department office and ensuring that M.S. Degree Committee members can attend.

Following the seminar, the student "defends" the prospectus to the M.S. Degree Committee. During this "Prospectus Defense" the M.S. Degree Committee assesses whether the student has a coherent plan for their thesis research and is capable of conducting it. Following a successful prospectus defense, the prospectus is approved by the M.S. Degree Committee and submitted to the Department along with a signed M.S. Prospectus Approval Form (https://biology.olemiss.edu/wp-content/uploads/sites/101/2020/12/MS-Prosp-Aprvl-Form-August-2020-fillable.pdf). When changes to the prospectus are required after the prospectus defense, these must be completed in a timely manner and the prospectus is not regarded as approved or successfully defended until the final version is submitted.

If a student changes the thesis topic or makes major modifications to the research plan, a new prospectus or a supplement must be approved by the M.S. Degree Committee. Should the M.S. Degree Committee membership change prior to the thesis defense, the new member(s) of the committee must review and approve the existing prospectus.

B7. The M.S. Thesis

A thesis representing original research is required of M.S. students. The content of the thesis follows the research proposed in the prospectus approved by the M.S. Degree Committee and is written as a typical research manuscript in the sciences (introduction, methods, results, discussion, references). The formatting requirements of the Graduate School (https://gradschool.olemiss.edu/current-students/thesis-and-dissertation-preparation/) must be followed. The student should work on the thesis in conjunction with the Major Advisor well ahead of the graduation date to produce a final copy that will be acceptable to the M.S. Degree Committee. This involves several back and forth writing and editing cycles between the student and Major Advisor, so that the version submitted to the M.S. Degree Committee is potentially final. The student will be required to present their thesis research as a departmental seminar and defend it to the M.S. Degree Committee (see Section B9). The thesis must be submitted to the M.S. Degree Committee at least two weeks prior to the defense. For the student to graduate, all members of the M.S. Degree Committee must approve the final thesis by signing the Thesis Signature Page (https://biology.olemiss.edu/wp-content/uploads/sites/101/2020/12/Thesis-Signature-Page.pdf).

B8. Application for Graduation

Following completion of all degree requirements and in anticipation of graduation, the student must submit the "Application for Graduate Degree" (Form GS8; https://gradschool.olemiss.edu/current-students/forms-and-manuals-library/), which authorizes the student to graduate that semester. The GS8 form is due early during the semester of anticipated graduation and it is the student's responsibility to submit the form on time. The student should submit Form GS7 (see section B9) and schedule their research seminar and thesis defense (final oral examination) at the same time that Form GS8 is submitted to the Department. To meet Graduate School deadlines, this should be at least three weeks prior to the defense date.

Students should review the Graduate School guidelines that outline requirements for graduation and gives deadlines for a given semester, “The End Game” (https://gradschool.olemiss.edu/current-students/the-end-game-preparing-to-graduate/). Note that when departmental or GPC approval is required for a form, that form should be submitted to the department at least one week ahead of the Graduate School deadline.

B9. The Research Seminar, Thesis Defense (Final Oral Examination), and other Graduation Requirements

Each M.S. student must present a final research seminar to the faculty and students of the Department of Biology. The research seminar describes the research conducted by the student for their M.S. thesis. The seminar must be scheduled with the Department of Biology at least two weeks before the proposed date. The research seminar is open to all interested parties and will be advertised by the Department to the University community.

M.S. students must enroll for 1 hour of BISC 691 (seminar) during the semester in which they present their research seminar and undergo their thesis defense. “Authorization of the Final Oral/Written Examination” (Form GS7; https://gradschool.olemiss.edu/current-students/forms-and-manuals-library/) must be submitted to the Department at least three weeks prior to the seminar and defense date in order to meet Graduate School deadlines.

Following the research seminar, the M.S. student must successfully complete a thesis defense (final oral examination) with their M.S. Degree Committee. The defense is chaired by the Major Advisor and attended by the M.S. Degree Committee. If a member of the M.S. Degree Committee is unable to attend, a replacement (who must be a Graduate Faculty member of the Department of Biology) may attend in their place with the approval of the Major Advisor and Graduate Program Coordinator or Department Chair. The defense is open to other members of the Graduate Faculty of the Department of Biology.

The thesis defense focuses on the students M.S. thesis research but can encompass any aspect of the student’s graduate work. The defense is on a pass/fail basis determined by a majority vote of the M.S. Degree Committee and approval by the Major Advisor.

As stated in Section B7, the student must provide each M.S. Degree Committee member with a potentially final copy of the thesis at least two weeks before the thesis defense. Following the thesis defense, adjustments and corrections to the thesis may be required. All members of the M.S. Degree Committee must sign the Thesis Signature Page (https://biology.olemiss.edu/wp-content/uploads/sites/101/2020/12/Thesis-Signature-Page.pdf) when the final version of the thesis is complete. The Thesis Signature Page is due to the Department of Biology by the last day of classes of that semester.

The final version of the thesis is uploaded electronically following the Graduate School’s instructions (https://gradschool.olemiss.edu/current-students/the-end-game-preparing-to-graduate/), and must be completed by the last day of classes of that semester. The Department of Biology requires that M.S. students submit a bound printed copy of the thesis for the Department’s records, and this can be ordered while submitting the thesis. The Major Advisor may require additional bound copies so the student should check with them before completing the thesis.

The Graduate School requires that M.S. students submit an Electronic Thesis and Dissertation Rights, Permission and Contact form (https://gradschool.olemiss.edu/current-students/the-end-game-preparing-to-graduate/) on submission of the final thesis.

When all the M.S. degree requirements are complete, the student should complete Department checkout procedures (see Section A5).

C. POLICIES PERTAINING TO A MASTER OF SCIENCE (M.S.) IN BIOLOGICAL SCIENCE (NON-THESIS OPTION)

Policies of the Department of Biology are in addition to general University policies stated by the Graduate School. Where these policies differ, the policy with the more stringent requirements must be followed. It is the student's responsibility to be familiar with the policies of the Graduate School (https://gradschool.olemiss.edu/home/).

C1. Admission and Major Advisor

Students are admitted into the Master of Science program following the policies in Section A2. Admission to the M.S. program requires the prior agreement of a Department of Biology faculty member to be the students Major Advisor. The Major Advisor (Thesis Director) must be a member of the Graduate Faculty in the Department of Biology.

C2. Preliminary Meeting with the Department Chair

New graduate students are required to meet with the Department Chair soon after starting in the program, usually during the first two weeks of enrollment. The student is responsible for scheduling this meeting with the Department office.

C3. Degree Requirement Form

Each student must meet with their Major Advisor, during or before the first week of the first semester. The purposes of the meeting will be to ascertain if there are deficiencies in the educational background of the student that need to be addressed, to determine specific degree requirements, and to discuss a plan of study for the degree. A departmental "M.S. Degree Requirement Form" (download from https://biology.olemiss.edu/programs/graduate/graduate-forms/ and completed digitally) must be completed by the student and approved soon after this meeting. Approved copies are retained by the Department and should also be retained by the Major Advisor and the student.

C4. Course Requirements and Enrollment

A minimum of 30 hours of graduate credit is required, of which at least 24 hours must be formal classroom courses (courses that require regular attendance, study assignments, final examinations, and letter grades). Directed Study (BISC 679) can be used as a non-formal course to meet the minimum of 30 hours of graduate credit, and it may be repeated when the topic changes. Courses must be approved by the Major Advisor and listed on the M.S. Degree Requirement Form and submitted to the department office after the first meeting.

Up to 6 hours of graduate credit at a grade of B or higher may be transferred from another institution with the approval of the Graduate Program Coordinator and Graduate School (requires Graduate School form GS3; https://gradschool.olemiss.edu/current-students/forms-and-manuals-library/).

Only course grades of C or higher are acceptable for graduate credit. If a student obtains a grade lower than a C in a course that is listed on their M.S. Degree Requirement Form they must retake the course or submit a new M.S. Degree Requirement Form that replaces that course with another. A cumulative GPA of 3.0 must be maintained in all graduate work undertaken to remain in good academic standing. A student is in good standing with respect to registration for an upcoming semester if he or she makes a 3.0

GPA on course work for the preceding Fall or Spring regular semester. A student whose grade point average is less than 3.0 for any regular semester will be placed on probation, and a dean's registration hold will be applied to the student's record. Such a student will not be allowed to register unless the academic department/program makes an affirmative recommendation to the Graduate Dean, who will then temporarily lift the hold.

The M.S. degree does not require continuous enrollment, but all requirements must be completed within six years of starting in the program.

C5. Application for Graduation, and other Graduation Requirements

Following completion of all degree requirements and in anticipation of graduation, the student must submit the "Application for Graduate Degree" (Form GS8; https://gradschool.olemiss.edu/current-students/forms-and-manuals-library/), which authorizes the student to graduate that semester. The GS8 form is due early during the semester of anticipated graduation and it is the student's responsibility to submit the form on time.

Students should review the Graduate School guidelines that outline requirements for graduation and gives deadlines for a given semester, "The End Game" (https://gradschool.olemiss.edu/current-students/the-end-game-preparing-to-graduate/). Note that when departmental or GPC approval is required for a form, that form should be submitted to the department at least one week ahead of the Graduate School deadline.

When all the M.S. degree requirements are complete, the student should complete Department checkout procedures (see Section A5).

D. POLICIES PERTAINING TO A DOCTOR OF PHILOSOPHY (Ph.D.) IN BIOLOGICAL SCIENCE

Policies of the Department of Biology are in addition to general University policies stated by the Graduate School. Where these policies differ, the policy with the more stringent requirements must be followed. It is the student's responsibility to be familiar with the policies of the Graduate School (https://gradschool.olemiss.edu/home/).

D1. Admission and Major Advisor (Dissertation Director)

Students are admitted into the Doctor of Philosophy program following the policies in Section A2. There are two admission tracks for the Ph.D. program:

Ph.D. student with a specific Major Advisor

Admission to this track of the Ph.D. program requires the prior agreement of a Department of Biology faculty member to be the students Major Advisor, who will be their Dissertation Director. The Major Advisor (Dissertation Director) must be a member of the Graduate Faculty in the Department of Biology. Full members of the Graduate Faculty are eligible to advise Ph.D. students. Ph.D. students may work with a member of the Associate Graduate Faculty, but a member of the Full Graduate Faculty must serve as the formal Major Advisor.

Ph.D. student on rotation system (no initial Major Advisor)

Admission to the rotation track of the Ph.D. program requires the agreement of three members of the Graduate Faculty to allow the student to rotate through their labs during the first year of the program. The

Graduate Program Coordinator will serve as the student's temporary advisor for their first year and will establish a rotation plan in consultation with the student, the GSC and individual faculty.

Students should expect to start their first rotation during their first semester. Typically, a rotation student will be within a lab for 4-5 weeks (approximately half a semester) before rotating into a new lab. Following the completion of all rotations, the student will write a summary of their rotation experience, which also states their preferred choice of permanent Major Advisor as well as alternates. This summary is submitted to the GPC and GSC. While the GSC will endeavor to place students with their preferred Major Advisor, after consultation with the faculty involved, students may be placed with alternate choices. Rotation students must have a Major Advisor in place by the end of their first academic year. If a student wishes to end their rotation early and continue to work with a specific Major Advisor, all parties (student, all faculty included in their rotation, GPC) must agree.

Full members of the Graduate Faculty are eligible to advise Ph.D. students. Ph.D. students may work with a member of the Associate Graduate Faculty, but a member of the Full Graduate Faculty must serve as the formal Major Advisor.

Following the first year, Ph.D. students who started on the rotation track follow the same policies as those who started with a specific Major Advisor.

D2. Preliminary Meeting with the Department Chair

New graduate students are required to meet with the Department Chair soon after starting in the program, usually during the first two weeks of enrollment. The student is responsible for scheduling this meeting with the Department office.

D3. Formation of Ph.D. Degree Committee

The Ph.D. Degree Committee will determine course and other requirements (training, publications, manuscripts submitted, presentations etc.) deemed necessary to satisfy the minimum Departmental and University requirements for the degree. Each Ph.D. student is required to meet with their Ph.D. Degree Committee at least once per year, however this meeting may be combined with other requirements (e.g. preliminary meeting with committee, prospectus defense, oral comprehensive exam, dissertation defense).

The Ph.D. Degree Committee must consist of at least four members of the Graduate Faculty. At least two members must be regular (non-Adjunct) Graduate Faculty from the Department of Biology (one of whom is the Major Advisor). At least one committee member must be a member of the Graduate Faculty of another department at the University of Mississippi. Additional committee members are allowed, but must be Graduate Faculty from the Department of Biology, Graduate Faculty in another department at the University of Mississippi, or Adjunct Graduate Faculty of the Department of Biology.

For Ph.D. students who entered the program with a specific Major Advisor, the committee should be formed and approved in the first or second semester of enrollment, or as soon thereafter as possible. For Ph.D. students who entered on the rotation track, the committee should be formed as soon as possible after a Major Advisor is selected, and no later than the end of their second semester in the program. In either case, the student, after consultation with the Major Advisor, will determine if prospective committee members are willing to serve. With the agreement of all committee members, the student requests to form the committee through myOleMiss (https://gradschool.olemiss.edu/appointing-student-advisory-committees-student-version/). The request is then reviewed by the GPC of the Department of Biology, followed by the Graduate School.

Any committee member, including the Major Advisor, may relinquish membership at will, but must inform the student, the committee, the GPC, and the Department Chair by email prior to resigning.

D4. Preliminary Meeting with the Ph.D. Degree Committee and Degree Requirements

Each student must meet with their Ph.D. Degree Committee soon after the committee is formed, and as early as possible after entering the program. The meeting shall be scheduled by the student and Major Advisor.

The purposes of the meeting will be to ascertain if there are deficiencies in the educational background of the student that need to be addressed, to determine specific degree requirements, and to discuss a plan of study for the degree. A departmental "Degree Requirement Form" (https://biology.olemiss.edu/wp-content/uploads/sites/101/2020/12/PhD-Degree-Reqrmt-Form-July-2020-fillable.pdf) must be completed by the student and approved soon after this meeting. The Major Advisor or committee may impose additional requirements beyond those required by the Department of Biology or Graduate School as considered necessary for proper training of the student and these must be stated on the form. Signed copies are given to the Department, Major Advisor, and the student.

Should the Ph.D. Degree Committee membership change, a new Ph.D. Degree Requirement Form must be completed and approved by the new committee.

D5. Course Requirements and Enrollment

A minimum of 54 hours of graduate credit acceptable to the Ph.D. Degree Committee is required. Ph.D. students who do not hold a M.S. degree in biology or closely related field are required to take a minimum of 24 hours of formal classroom coursework; courses that require regular attendance, study assignments, final examinations, and letter grades. Directed Study (BISC 679), Seminar (BISC 691 or 692), and Dissertation (BISC 797) are not considered formal courses. Ph.D. students who hold a M.S. degree in biology or a closely related field are required to take a minimum of 9 hours of formal classroom coursework, unless the Ph.D. Degree Committee requires more.

Ph.D. students must take 2 hours of BISC 691 (seminar) during their time in the program. 1 hour of BISC 691 is taken during a semester in which they present either a seminar on a topic distinct from their dissertation research to the Department of Biology or give an oral presentation at a national or international scientific conference, or the semester after giving that presentation (if a conference presentation was given in the summer). An additional 1 hour of BISC 691 is taken during the semester in which they present their final dissertation defense. Only 4 hours of Directed Study (BISC 679) may be counted towards the degree and a maximum of 12 hours total can be Seminar (BISC 691 or 692) or Directed Study (BISC 679). Ph.D. students must take a minimum of 18 hours of Dissertation (BISC 797) during their graduate studies.

Courses must be approved by the Ph.D. Degree Committee and listed on the Ph.D. Degree Requirement Form (https://biology.olemiss.edu/wp-content/uploads/sites/101/2020/12/PhD-Degree-Reqrmt-Form-July-2020-fillable.pdf) and submitted to the department office after the first Degree Committee meeting. If the Degree Committee changes, a new Ph.D. Degree Requirement Form, approved by the new committee, must be submitted.

The Graduate School does not accept transfer credit for Ph.D. students. The Ph.D. Degree Committee may consider courses taken at previous institutions when determining the student's specific course requirements. However, the total number of hours of courses to be taken at the University of Mississippi is the same regardless of any courses taken at a previous institution.

Only course grades of C or higher are acceptable for graduate credit. If a student obtains a grade lower than a C in a course that is listed on their Ph.D. Degree Requirement Form they must retake the course or submit a new Ph.D. Degree Requirement Form that replaces that course with another. A cumulative GPA of 3.0 must be maintained in all graduate work undertaken to remain in good academic standing. A student is in good standing with respect to registration for an upcoming semester if he or she makes a 3.0 GPA on course work for the preceding Fall or Spring regular semester. A student whose grade point average is less than 3.0 for any regular semester will be placed on probation, and a dean's registration hold will be applied to the student's record. Such a student will not be allowed to register unless the academic department/program makes an affirmative recommendation to the Graduate Dean, who will then temporarily lift the hold.

A Ph.D. student must complete at least three years of study beyond the bachelor's degree, of which at least two years must be in graduate study at the University of Mississippi, including minimum of one year (18 hours graduate credit) in continuous enrollment over two regular semesters. All Ph.D. work must be completed within seven years of enrollment and the Ph.D. student must be admitted to candidacy by the end of their third year.

D6. Research Prospectus and Defense

Prior to initiating the bulk of their dissertation research, the student must prepare a written research prospectus which is endorsed by all members of the Ph.D. Degree Committee and filed with the Department of Biology. The Ph.D. prospectus outlines the student's proposed dissertation research including background, a research plan, and significance of the dissertation project. The Ph.D. prospectus is typically completed and defended during the third to fifth semester of enrollment and must be completed prior to taking the comprehensive exam and being admitted to candidacy (see Section C7).

Ph.D. students are required to present their prospectus research to the Department of Biology faculty and students in an oral seminar format. The seminar should be 25-30 minutes, with the intent of sharing the research content and inviting input from faculty and students. The student is responsible for scheduling the seminar and subsequent defense with the Department office and ensuring that Ph.D. Degree Committee members can attend.

Following the seminar, the student "defends" the prospectus to the Ph.D. Degree Committee. During this "Prospectus Defense" the Ph.D. Degree Committee assesses whether the student has a coherent plan for their dissertation research and is capable of conducting it. Following a successful prospectus defense the prospectus is approved by the Ph.D. Degree Committee and submitted to the Department along with a signed Ph.D. Prospectus Approval Form (https://biology.olemiss.edu/wp-content/uploads/sites/101/2020/12/Dissert-Prosp-Aprvl-Form-August-2020-fillable.pdf).

When changes to the prospectus are required after the defense, these must be completed in a timely manner and the prospectus is not regarded as approved or successfully defended until the final version is submitted.

If a student changes the dissertation topic or makes major modifications in the research plan, a new prospectus or a supplement must be approved by the Ph.D. Degree Committee. Should the Ph.D. Degree Committee membership change prior to the thesis defense, the new member(s) of the committee must review and approve the existing prospectus.

D7. Ph.D. Comprehensive Examination and Admission to Candidacy for the Degree

Ph.D. students must take a written and oral comprehensive examination from their Ph.D. Degree Committee. The comprehensive examination is taken after all (or the majority) of the required coursework

and other degree requirements have been completed, typically during the second or third year of enrollment. The examination must be successfully completed within six semesters of admission into the graduate program. Students who start in the M.S. program but then transfer to the Ph.D. program without completing their M.S. degree must successfully complete the examination within six semesters of the time that they started in the graduate program, not the time that they started in the Ph.D. program. Students failing to perform satisfactorily on the comprehensive examination must retake the exam within one semester. Two failures of the exam results in discontinuance in the program, as does failure to pass the exam by the end of the sixth semester.

The examination is conducted by all members of the student's Ph.D. Degree Committee and is administered in both the written and oral form. The doctoral student is expected to demonstrate full competence in the subject matter of biological science and in the tools and skills of biological research in their area. The format of the written exam is at the discretion of each Ph.D. Degree Committee member, but the student should expect that committee member will provide written questions that take at least one day to answer. Thus, the written portion of the Comprehensive Examination is usually taken over a period of 1-2 weeks, with the student answering questions from one Ph.D. Degree Committee member each day.

Following completion of the written portion of the Comprehensive Examination, the oral portion of the examination occurs. The oral portion of the examination is conducted by the Ph.D. Degree Committee and is open to all members of the Graduate Faculty of the Department of Biology. Scheduling of this examination requires completion and filing of "Authorization to Sit for a Comprehensive Exam" (Form GS5; https://gradschool.olemiss.edu/current-students/forms-and-manuals-library/) two weeks prior to the oral examination. The student is responsible for scheduling the oral comprehensive examination with the Department office and ensuring that Ph.D. Degree Committee members can attend.

The Ph.D. Degree Committee votes on whether the student has passed or failed the Comprehensive Examination. Two or more (40% if more than five members) dissenting votes will constitute failure of the examination. The result of the Comprehensive Examination must be reported to the Graduate School on the "Report of the Comprehensive Examination Committee and Admission to Candidacy" (Form GS5.1; https://gradschool.olemiss.edu/current-students/forms-and-manuals-library/) and to the Department on the Comprehensive Examination Form (https://biology.olemiss.edu/wp-content/uploads/sites/101/2020/12/Ph.D.-Comprehensive-Exam.-Form-August-2020-fillable.pdf) within 3 days after the oral examination, regardless of the outcome. For a student who has completed course requirements and successfully passed the Ph.D. Comprehensive Examination, this form is the recommendation by the Major Advisor that the Ph.D. student be admitted to candidacy. Admission to Candidacy must occur at least two full semesters before anticipated graduation.

In accordance with Graduate School policy, Ph.D. students who have been admitted to candidacy must maintain continuous enrollment (defined as at least 3 hours of enrollment in two semesters of a calendar year). Following admission to candidacy, the Ph.D. student has five years to complete all remaining requirements and graduate.

D8. Departmental Seminar Requirement for Ph.D. Students

In addition to presenting their research prospectus and final dissertation research as seminars, Ph.D. students are required to present either an additional seminar to the Department of Biology or an oral presentation of their research at a national/international scientific conference.

The additional research seminar presented to the Department of Biology may be on any research topic acceptable to the Major Advisor, but may not duplicate what will be presented later as part of the dissertation defense (i.e. it must present a different research project than the dissertation). This research

does not have to be conducted at the University of Mississippi and presentation of research conducted before the student joined the graduate program is acceptable.

If the student elects to give an oral presentation at a national/international scientific conference instead, the student should check with the GPC prior to giving the presentation. Such approval typically requires providing a submitted abstract as well as information about the conference.

Ph.D. students must enroll for 1 hour of Seminar (BISC 691) in the semester that they give the additional research seminar or conference presentation (see Section C5). For conferences outside of regular semester times, this enrollment in Bisc 691 can be following semester.

D9. The Doctoral Dissertation

A dissertation representing independent and original research of publishable quality is required of Ph.D. students. The content of the dissertation follows the research proposed in the prospectus approved by the Ph.D. Degree Committee, and can be written as multiple chapters, each in the format of a typical research manuscript in the sciences (introduction, methods, results, discussion). The formatting requirements of the Graduate School (https://gradschool.olemiss.edu/current-students/thesis-and-dissertation-preparation/) must be followed. The student should work on the dissertation in conjunction with the Major Advisor well ahead of the graduation date to produce a final copy that will be acceptable to the Ph.D. Degree Committee. This involves several back and forth writing and editing cycles between the student and Major Advisor, so that the version submitted to the Ph.D. Degree Committee is potentially final. The student will be required to present their dissertation research as a departmental seminar and defend it to the Ph.D. Degree Committee (see Section C11). The dissertation must be submitted to the Ph.D. Degree Committee at least two weeks prior to the defense. For the student to graduate, all members of the Ph.D. Degree Committee must approve the final dissertation by signing the Dissertation Signature Page (https://biology.olemiss.edu/wp-content/uploads/sites/101/2020/12/Dissertation-SIgnature-Page.pdf).

D10. Application for Graduation

Following completion of all degree requirements and in anticipation of graduation, the student must submit the “Application for Graduate Degree” (Form GS8; https://gradschool.olemiss.edu/current-students/forms-and-manuals-library/), which authorizes the student to graduate that semester. The GS8 form is due early during the semester of anticipated graduation and it is the student’s responsibility to submit the form on time. The student should submit Form GS7 (see section C11) and schedule their research seminar and dissertation defense (final oral examination) at the same time that Form GS8 is submitted to the Department. To meet Graduate School deadlines, this should be at least three weeks prior to the defense date.

Students should review the Graduate School guidelines that outline requirements for graduation and gives deadlines for a given semester, “The End Game” (https://gradschool.olemiss.edu/current-students/the-end-game-preparing-to-graduate/). Note that when departmental or Graduate Program Coordinator approval is required for a form, that form should be submitted to the department one week ahead of the Graduate School deadline.

D11. The Research Seminar, Dissertation Defense (Final Oral Examination), and other Graduation Requirements

Each Ph.D. student must present a final research seminar to the Department of Biology. The research seminar describes the research conducted by the student for their Ph.D. dissertation. The seminar must be scheduled with the Department of Biology at least two weeks before the proposed date. The research seminar is open to all interested parties and will be advertised by the Department to the University community.

Ph.D. students must enroll for 1 hour of BISC 691 (seminar) during the semester in which they present their research seminar and undergo their dissertation defense. “Authorization of the Final Oral/Written Examination” (Form GS7; https://gradschool.olemiss.edu/current-students/forms-and-manuals-library/) must be submitted to the Department at least three weeks prior to the seminar and defense date in order to meet Graduate School deadlines.

Following the research seminar, the Ph.D. student must successfully complete a dissertation defense (final oral examination) with their Ph.D. Degree Committee. The defense is chaired by the Major Advisor and attended by the Ph.D. Degree Committee. If a member of the Ph.D. Degree Committee is unable to attend, a replacement (who must be a Graduate Faculty member of the Department of Biology) may attend in their place with the approval of the Major Advisor and Graduate Program Coordinator or Department Chair. The defense is open to other members of the Graduate Faculty of the Department of Biology.

The dissertation defense focuses on the students Ph.D. dissertation research but can encompass any aspect of the student’s graduate work. The defense is on a pass/fail basis determined by a majority vote of the Ph.D. Degree Committee and approval by the Major Advisor.

As stated in Section C9, the student must provide each Ph.D. Degree Committee member with a potentially final copy of the dissertation at least two weeks before the dissertation defense. Following the dissertation defense, adjustments and corrections to the dissertation may be required. All members of the Ph.D. Degree Committee must sign the Dissertation Signature Page https://biology.olemiss.edu/wp-content/uploads/sites/101/2020/12/Dissertation-SIgnature-Page.pdf) when the final version of the dissertation is complete. The Dissertation Signature Page is due to the Department of Biology by the last day of classes of that semester.

The final version of the dissertation is uploaded electronically following the Graduate School’s instructions (https://gradschool.olemiss.edu/current-students/the-end-game-preparing-to-graduate/), and must be completed by the last day of classes of that semester. The Department of Biology requires that Ph.D. students submit a bound printed copy of the dissertation for the Department’s records, and this can be ordered while submitting the dissertation. The Major Advisor may require additional bound copies so the student should check with them before completing the thesis.

The Graduate School requires that Ph.D. students submit an Electronic Thesis and Dissertation Rights, Permission and Contact form (https://gradschool.olemiss.edu/current-students/the-end-game-preparing-to-graduate/) on submission of the final dissertation.

The Graduate School requires that Ph.D. students complete the “Survey of Earned Doctorates Form” form (https://gradschool.olemiss.edu/current-students/the-end-game-preparing-to-graduate/) prior to graduating. This can be completed 3-4 weeks before the last day of classes.

When all the Ph.D. degree requirements are complete, the student should complete Department checkout procedures (see Section A5).