

**GRADUATE STUDENT HANDBOOK**  
**for on-campus, thesis- or dissertation-based degree programs**

**Department of Biological Sciences**  
**Mississippi State University**

**2026 Edition**

**Approved by Biological Sciences Faculty**  
**Effective January/1/2026**

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**MSU Department of Biological Sciences**  
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## INTRODUCTION

The Department of Biological Sciences at Mississippi State University welcomes you to our graduate program. We hope to impart to you a core of knowledge as well as a set of skills that will prepare you for a successful career. The core of knowledge includes both the basic principles of biology and the focused information within your area of specialization. The set of skills includes the ability to: speak and write clearly, critically evaluate the scientific literature, gather & analyze data, and publish scientific findings. Our objective is to enable you to use the skills and knowledge you acquire here to become an independent scientist. We appreciate the confidence you have displayed in us by choosing our graduate program, and we wish you success with this aspect of your education.

Our graduate programs have a number of deadlines and milestones that are required to be met by the student to ensure timely progress through the program. Failing to meet those milestones and deadlines may result in different sanctions, which can include loss of financial support, probation, or dismissal. However, we do acknowledge that on occasion extenuating circumstances can arise that can negatively impact student progress. Petitions to extend any deadlines can be made to the Graduate Coordinator and will be reviewed and evaluated by the Graduate Committee in consultation with the Department Head on a case by case basis. Time management issues in completing normal program activities, such as fulfilling teaching assignments and completing research in a timely manner, will not be considered extenuating and will not be sufficient for an extension request.

**This Graduate Student Handbook contains the policies and guidelines for on-campus graduate students within the Department of Biological Sciences. The student also must follow the policies of the Graduate School contained in the Mississippi State University Graduate Catalog <http://www.catalog.msstate.edu/graduate/>), as well as any subsequent memoranda issued by the Graduate School. Important dates and deadlines can be found on the Graduate School Calendar found here <https://www.grad.msstate.edu/students/graduate-school-calendar>.**

**The department also participates in the Computational Biology Program and while that program has its own academic policies, some operational components also apply to those students if they are working in the laboratory of a Biological Sciences faculty member. Please see page 30.**

**Please note that it is ultimately the student's responsibility to become familiar with and to adhere to the policies and deadlines of the Department and the Graduate School. Failure to do so will jeopardize the student's standing in the graduate program, including any financial support provided by the Department or University.**

**ALL THE FORMS REFERRED TO IN THIS HANDBOOK CAN BE FOUND ON EITHER THE GRADUATE SCHOOL WEB PAGE (FOR GRADUATE SCHOOL FORMS) OR THE DEPARTMENT WEB PAGE (FOR DEPARTMENT FORMS).**

**<https://www.grad.msstate.edu/students/forms>  
<https://www.biology.msstate.edu/degree-programs/graduate-programs>**

## IMPORTANT DEFINITIONS

*Graduate Committee* – This phrase refers to the standing Department Graduate Advisory Committee. This Committee is meant to periodically review Departmental Graduate Program matters and to serve additional ancillary functions, as described in this document.

For 2025, the Biological Sciences Graduate Committee includes: Dr. Ballinger ([ballinger@biology.msstate.edu](mailto:ballinger@biology.msstate.edu)), Dr. Ervin ([gervin@msstate.edu](mailto:gervin@msstate.edu)), Dr. Jordan ([jordan@biology.msstate.edu](mailto:jordan@biology.msstate.edu)), Dr. Smith ([msmith@biology.msstate.edu](mailto:msmith@biology.msstate.edu)), Dr. Thornton ([thornton@biology.msstate.edu](mailto:thornton@biology.msstate.edu)), Dr. Mark Welch ([welch@biology.msstate.edu](mailto:welch@biology.msstate.edu)), and Dr. Wisnoski ([nathan.wisnoski@msstate.edu](mailto:nathan.wisnoski@msstate.edu)). The on-campus Graduate Coordinator is Dr. Mark Welch. Note that Graduate Committee composition may change.

One of the functions of the departmental Graduate Committee is to aid in resolving difficulties that may arise during a student's program. The student has the opportunity to bring such concerns and appeals to the Graduate Committee for discussion and resolution. Students are urged to talk with the Graduate Coordinator or any members of the Committee about any concerns pertaining to their graduate experience.

*Advisory Committee* – This refers to the specific advisory committee formed in support of a Graduate Student's thesis or dissertation studies. This committee provides direct and specific guidance at least annually to the student as they progress through the Biological Sciences Graduate Program. Formation of this committee is discussed on pages 11 and 14.

*Graduate Assistantship* – Assistantships are one means of providing funding to graduate students and take the form of Research Assistantships (RAs), Teaching Assistantships (TAs), and Service Assistantships (SAs). Most graduate students in Biological Sciences are funded on either RA or TA, and expectations for these awards differ, as do the specific amounts of financial assistance provided. TAs require students to fill what is referred to as a 0.5 FTE position (20 hours per week), assisting in various aspects of the teaching mission of the Department. Students still must complete classes according to their Programs of Study and must complete an independent research project that will be used to produce a thesis (Master's students) or dissertation (Ph.D. students) in addition to their TA duties. These academic and research expectations are the basis for assigning a half-time role to assistantships. However, it is important that students realize that class requirements and their thesis or dissertation research usually require more than 20 hours of work per week for successful completion. Teaching Assistantships provide a stipend and a tuition waiver, but students may be responsible for other university fees. Research Assistantships require some contribution to a faculty member's research program, while the student must also complete classes according to their Programs of Study. Students on RA usually do not have a teaching expectation, but this may vary among funding sources. RA funding covers tuition and a stipend, but like the TA students may be responsible for other university fees. Graduate assistants are not eligible for vacation, sick leave or unemployment compensation. Graduate assistants are entitled to the same university holidays as faculty and staff unless other arrangements are agreed upon in the department. Weekends are not considered university holidays and work related to teaching or research on weekends, or other non-standard business hours, may be required.

*Inability to perform GTA duties* – GTA duties are critical to the functioning of the Department, so students should make every effort to meet their TA responsibilities. However, in the event that a TA is sick, plans to attend a conference, or will otherwise not be able to perform their TA duties

for reasons outlined in AOP 12.09 (Excused Absences Defined), the TA should immediately reach out to the instructor of record to inform them of the situation. For scheduled conferences, this should be done as soon as the dates of the absence are known, ideally at the beginning of the semester so the faculty can plan accordingly.

*Full-time course load* – A full-time course load is at least 9, and no more than 13, credit hours of **graduate coursework** per semester during the Fall and Spring semesters. Graduate courses are typically numbered 6000 and higher. However, international students required to take ESL courses (numbered in the 5000s) may count these toward full-time enrollment. During Summer terms (Maymester, Summer I, and Summer II), a full-time load is 3 credit hours per session, or 6 credit hours for the full-length summer session. The time period used for determining summer course loads is dependent upon the source of a student's funding.

*Graduate Coursework* - Formal coursework in the field or program of interest beyond the bachelor's level at any accredited university. Distance courses cannot be used to fulfill Graduate Coursework requirements.

## **DEGREES OFFERED AND ADMISSION STANDARDS**

### **Minimum standards of admission**

#### ***Regular admission***

Students are eligible for admission who have received at least a 2.75 GPA on their undergraduate coursework and 3.0 in life science courses. Students are required to submit scores Test of English as a Foreign Language (TOEFL), where applicable.

International students must score at least 6.0 on the TOEFL Essentials, 54 on the TOEFL iBT, or 4.6 on the IELTS (written exam; see Table below for other scores) for graduate studies admission. Students with TOEFL scores below 9.0 (TOEFL Essentials), 79 (TOEFL iBT), or 6.5 (IELTS) may be admitted, but will be required to complete ESL training and enroll in EAP 5323 (Academic Research and Writing) as specified in the *MSU Graduate Catalog* (<http://www.catalog.msstate.edu/graduate/>), at their own expense. See the Graduate School website (<http://www.grad.msstate.edu/>) for more information on these requirements.

The graduate faculty screen applications and recommend for or against admission to the M.S. and Ph.D. programs based on academic records, exam scores, letters of recommendation, program openings, compatibility with faculty expertise, and availability of funds. Because of the varying expectations of individual faculty, it is advised that potential applicants make contact with an appropriate Major Professor/thesis advisor prior to applying, to determine academic suitability and research compatibility. Typically, of students who apply to the program without initiating contact with a supporting faculty member in advance, only a small percentage are admitted to graduate studies in the Department.

\* An international student holding one or more degrees (baccalaureate or higher) from a college or university in the U.S. is not required to submit English language test scores for admission. Similarly, an international student from a country where English is the first language, as documented by a statement on the high school graduating certificate that English is the official (first) language of the country, and who holds one or more degrees (baccalaureate or higher) from a college or university where English is the first language is not required to submit English

language test scores. However, such students, after admission and registration at Mississippi State University, and upon the recommendation of the department, may be required to schedule one or more ESL (English as a Second Language) courses.

### ***Provisional admission***

In rare cases, if a student does not meet the minimum admission requirements to receive an assistantship, an individual faculty member may sponsor the student, if the student's record is close to the minimum requirements and they have exceptional academic promise. In such a case, the student will be admitted provisionally as recommended by the Graduate Committee. The provisional student must earn at least a 3.0 GPA on the first nine hours of regular graduate courses taken at MSU. ***Neither transfer credits, nor credits earned while in Unclassified status can be used to satisfy this nine-hour requirement.*** The Graduate School will dismiss students that do not meet the minimum expectations of their provisional status. Following notification from the Office of the Graduate School that the required 3.0 GPA has been achieved, the Graduate Committee will review the student's progress and make a final decision whether the recommendation for regular admission should be approved. This review also will involve the student's advisory committee if it has been formed. ***A student will not be retained on provisional status for more than two semesters, and a student is not eligible to hold a graduate assistantship (TA, RA, or SA) while in the provisional status.***

### ***Contingent Admission***

In some cases, a student can be accepted pending a particular condition, such as completion of a B.S. or M.S. Degree or other conditions such as determined by the faculty. A student accepted on a contingent basis may receive an assistantship or fellowship. The Graduate Committee, and the student's Advisory Committee, will review these conditions to determine whether they have been satisfactorily completed after the time period specified upon admission to the Program. ***Failure to remedy the condition within a reasonable period of time may serve as grounds for dismissal from the Program.***

### ***Undergraduate Requirements***

It is expected that students who will be admitted to our graduate program will have had the basic coursework background required for the B.S. in Biological Sciences or Microbiology degree programs at Mississippi State University (see <https://www.biology.msstate.edu/> for those curricula). The student must have at least 30 semester hours in the area of basic upper division (i.e., sophomore and higher) courses in biological/life sciences (not including computer science). If the student has not taken appropriate coursework, deficiencies will need to be made up during the student's graduate program. The Advisory Committee can specify particular undergraduate deficiencies that the student must make up for undergraduate credit, however, these courses are not eligible for inclusion in the Program of Study.

## **GENERAL DEGREE REQUIREMENTS**

The general degree requirements are covered in the *Mississippi State University Graduate Catalog* (<http://www.catalog.msstate.edu/graduate/>). By the end of the second semester of residence, the student must file a Program of Study. ***Failure to meet this deadline may result in loss of financial support from the department.*** The Program of Study must be formulated in consultation with the Major Professor and the Advisory Committee and must be approved by the Graduate Coordinator. All graduate students are required to take the following courses: BIO

8011 and ST 8114 (or appropriate substitute, as approved by the advisory committee). These required courses should be included on the Program of Study form. **Note that only two hours of BIO 8011 will be applied towards credit hour requirements for graduation and should not count for more on the Program of Study.**

The Advisory Committee must approve substituting another statistics course in writing. The Graduate Coordinator must approve the substitution, and documentation should be placed in the student's Departmental file. Appropriate substitutes must minimally be 8000-level, or equivalent three credit hour courses that are GPA graded. In addition, doctoral level students are strongly encouraged to take advanced statistics courses in their particular area of research emphasis.

At least nine of the academic credit hours must come from courses numbered 8000 or higher. Some Directed Individual Study courses (BIO 7000 level) may be approved for use in meeting the requirement of courses at the 8000 or 9000 level. Requests for advanced-level credit for BIO 7000 should be approved by the Advisory Committee and submitted to the Graduate Coordinator. When the Advisory Committee and the Graduate Coordinator *disagree* on approval of these requests, the Department Head will have final approval authority. Regardless, no more than six semester hours of graduate credit may be earned in Directed Individual Study (BIO 7000) courses.

**All graduate students should register for and attend BIO 8011 Seminar every semester in residence including the semester during which students give their exit seminar on their thesis or dissertation (unless in summer).** The requirement that all students participate in BIO 8011 may only be waived by the Graduate Coordinator under special circumstances with the consent of the Department Head. The exit seminar will take place very shortly before the student's thesis or dissertation defense. At this exit seminar, thesis/dissertation research should be presented to a public audience, and the Advisory Committee. The student must advertise the presentation throughout the department in advance of the scheduled date. All faculty in attendance will evaluate the exit seminar based on: organization, visual aids, speaking ability, demonstration of scientific ability, and general effectiveness at conveying scientific information. Also, the student is encouraged to volunteer to present their work at other occasions to gain the valuable experience of making an oral presentation to a professional audience and also to make presentations at local, regional and national meetings.

It also is required that all graduate students demonstrate sufficient proficiency in the general biological sciences at the level necessary to be competent to teach a freshman level course in a life science to majors. To this end, the Department of Biological Sciences encourages every graduate student obtain some teaching experience, which is normally at least one semester of laboratory instruction.

Another resource of interest to new graduate students is the Office of the Graduate School's web site:

<https://www.grad.msstate.edu/> and the Graduate Assistant Handbook: [Graduate Assistant Handbook](#)

## RESEARCH PROPOSAL

\*\*\* This section refers to the Research Proposal for both M.S. and Ph.D. students, not the Ph.D. pre-proposal outlined on page 9.

A Research Proposal must be prepared for both M.S. and Ph.D. programs. This proposal provides the opportunity for the students to describe the research area and general research plan to the committee and seek their input as to the project's suitability for meeting the expectations of their degree program. Until the Advisory Committee approves the project there are no guarantees that the project will meet the expectations of the degree program. An approved proposal protects the student, serves to fully inform the Advisory Committee on the student's project, and affords the Advisory Committee an opportunity to provide feedback on the student's proposed work.

Although the student is encouraged to informally discuss the proposed research with committee members, the Research Proposal must be formally approved at a special meeting of the Advisory Committee, the Proposal Defense, where the student presents the proposed research, and where differences of opinion can be resolved. The results of the Proposal Defense should be recorded even if the Advisory Committee objects to the proposal, or only approves it pending revisions. The Biological Sciences Graduate Research Proposal Approval Form is available at <https://www.biology.msstate.edu/degree-programs/graduate-programs>. The Research Proposal is not approved until a signed copy of the Biological Sciences Graduate Research Proposal Approval Form is filed along with the final approved version of the Research Proposal.

The student, Major Professor, or any Committee member should call additional Advisory Committee meetings whenever it is deemed necessary. If the student is not defending a Research Proposal, and examination results are not expected, only the documentation of the annual committee meeting is required. The Advisory Committee must approve any major changes in scope or direction of the research. If the Research Proposal is significantly modified, the updated Research Proposal must be filed along with a new Biological Sciences Graduate Research Proposal Approval Form.

The Proposal Defense should be scheduled as early as possible but ***no later than the end of the second semester of residency for M.S. students, or the fourth semester of residency for Ph.D. students.*** The end of the semester is defined as the last day of final exams for that semester; completion of degree requirements within the timeframe of the academic semester is an MSU Graduate School requirement. A completed Biological Sciences Graduate Research Proposal Approval Form, ***signed by all committee members***, should then be submitted, along with a complete copy of the proposal, to the Graduate Coordinator. ***Failure to meet the deadline for holding the proposal defense, without written exception granted by the Graduate Coordinator prior to the deadline and only for extenuating circumstances, will result in receiving a "U" for research hours and probation the following semester.*** The committee may return a decision of pass (i.e., the proposal is acceptable as is), conditional pass (the proposal requires minor revisions), or fail (the proposal is unacceptable and requires major revisions). If a conditional pass is issued, the student will have one month to complete the required revisions and return the proposal to their committee. The committee may then approve the proposal without an additional committee meeting. Students who fail the Proposal Defense will be given a "U" for research hours and placed on probation. The student will have six months to successfully defend a new proposal. At that time, a new proposal form marked "Passed" must be ***signed by all committee members*** and submitted to the Graduate Coordinator. ***Failure to meet these deadlines or failing the Proposal Defense a second time will result in dismissal from the program.***

Proposal deadlines for students who have re-applied to the program following a separation from their prior advisor and have been granted continuation in the program are not extended, but a grace period of up to one semester may be granted by the Graduate Committee.



## M.S. RESEARCH PROPOSAL FORMAT

The Research Proposal for M.S. students should be no more than four pages in length, excluding references. The following is one suggested format to be used in preparing the written Research Proposal for M.S. students. However, it is strongly encouraged that students prepare their proposal such that they mirror guidelines used by the most relevant federal funding agency. This provides a familiarity with the grant funding process, the funding agency/agencies, and a format more in-line with the broader scientific community. Given the abbreviated format, a letter of intent, or pre-proposal format is recommended.

<b>Suggested components of a Research Proposal for the Master's degree (four-page maximum, excluding references)</b>	
<b>Title</b>	Should state clearly and concisely the nature of the proposed research
<b>Rationale</b>	Should state the nature of the problem clearly and concisely, documented with the most highly relevant citations from the peer-reviewed scientific literature.
<b>Central hypothesis or hypotheses</b>	The key hypothesis around which the thesis will be developed. Should be clearly linked with the rationale provided above and the Objectives and Approach described below.
<b>Objectives</b>	Should provide discrete, succinct statement of specific objectives, linked clearly to the Hypothesis(es) above.
<b>Specific Research Plan</b>	Should include design of the experiment(s) to be conducted and outline of proposed statistical analyses of data. Should flow clearly from the Hypothesis and Objectives stated above.
<b>Expected Significance of Research</b>	Should provide a summary of expected results, again, linked clearly with the elements described above, along with expected benefit of the work.
<b>Literature Cited</b>	Should be formatted according to convention of the student's sub-discipline within the Biological Sciences.
<b>Suggested funding agencies to consult for additional suggestions:</b> National Science Foundation (pre-proposals), US Department of Agriculture (letters of intent), National Institutes of Health (letters of intent), Department of Defense (pre-proposals).	

For the proposal defense and all other such meetings, copies of relevant materials should be supplied to each Committee member ***at least two weeks prior to the meeting.***

## PH.D. RESEARCH PRE-PROPOSAL FORMAT, YEAR 1

Ph.D. students are required to prepare a short research plan (Pre-proposal) no later than their second semester to demonstrate they have a grasp of their research project and ideas about what will become their official Research Proposal. The first-year research pre-proposal should be no longer than two pages in length, including references. References can be cited as

PubMed ID numbers rather than full citations. It is recommended that students prepare their proposals according to the guidelines for the Research Statement component of the NSF Graduate Research Fellowship Program proposal, or in line with short-format proposal guidelines used by the most relevant federal funding agency. In this case, the total proposal length may exceed two pages with the approval of the major advisor. In fitting with strict length requirements, this proposal will clearly but concisely summarize the major components of the full-proposal described below. No abstract is required for this proposal. The pre-proposal will be reviewed by the student's Advisory Committee for feedback.

## **PH.D. RESEARCH PROPOSAL FORMAT, YEAR 2**

The Research Proposal for Ph.D. students should be a full-length proposal. The following is one suggested format to be used in preparing the written Research Proposal for Ph.D. students. However, it is strongly encouraged that students prepare their proposal such that they mirror guidelines used by the most relevant federal funding agency. This provides a familiarity with the grant funding process, the funding agency/agencies, and a format more in-line with the broader scientific community. Formats for the NIH and NSF are encouraged.

<b>Suggested general components of a Research Proposal</b>	
<b>Title</b>	Should state clearly and concisely the nature of the proposed research
<b>Abstract</b>	Should summarize the rationale for the work, how the work will be performed, and the expected results and importance of the research. Abstracts usually are in the range of 200-400 words.
<b>Introduction</b>	Should state the nature of the problem clearly and specifically, documented with relevant citations from the peer-reviewed scientific literature.
<b>Objectives</b>	Should provide discrete, succinct statement of specific objectives, including hypotheses to be tested.
<b>Research Plan and Methods</b>	Should demonstrate knowledge and competence; should include design and proposed statistical analyses of data.
<b>Preliminary Data</b>	Should be presented clearly and concisely, where available.
<b>Significance of Research</b>	Should provide discussion of expected results, supported by the scientific literature, and justification of research.
<b>Literature Cited</b>	Should be formatted according to convention of the student's sub-discipline within the Biological Sciences.
<b>Suggested funding agencies to consult for proposal format</b>	
<b>National Science Foundation</b>	search for Grant Proposal Guide
<b>National Institutes of Health</b>	search for Grants Process Overview
<b>US Department of Agriculture</b>	search for Grant Application Information
<b>American Heart Association</b>	search for Grant Writing Tips

For the proposal defense and all other such meetings, copies of relevant materials should be supplied to each Committee member **at least two weeks prior to the meeting.**

## MASTER'S OF SCIENCE DEGREE

### General

The M.S. program requires at least 30 hours of graduate level courses: 6 hours of research hours (**BIO 9000**, under the appropriate faculty member) and includes two hours of BIO 8011 and ST 8114 or appropriate substitute. At least 24 credit hours must be from GPA-graded graduate coursework. At least 9 of the 24 hours **must be at the 8000 level or higher** or their equivalents (**i.e., graduate-only courses**) also see General Degree Requirements regarding BIO 7000: Directed Individual Study. The Advisory Committee must approve substituting another statistics course. Appropriate substitutes must minimally be 8000-level three credit hour courses that are GPA graded. A minor is optional and will be declared based upon the recommendations of the Advisory Committee and student career goals. At least 9 credit hours and consent of the Graduate Coordinator from the minor area are required. Further, the Advisory Committee must include a member of the Graduate Faculty from the minor area.

The M.S. research is designed to give the student experience in the scientific process, and the M.S. thesis is expected to be the result of an original investigation of a concise nature that, ideally, would be submitted for publication in a peer-reviewed scientific outlet. The student will develop the research project under the direction of the Major Professor. The Advisory Committee must approve the Program of Study, Research Proposal, the written thesis and the oral defense.

### Time limit

Consistent with Graduate School policy, eight years is the time limit for fulfilling the requirements for an M.S. degree at MSU. A typical time for completion of an M.S. in Biology is two to three years. If truly extenuating circumstances prevent meeting the eight-year limit, the Graduate School can be petitioned to allow additional time. An extension of time form, available on the Graduate School website, can be used to request a one-time, one-year extension. Such requests for time extensions must have the approval of the Advisory Committee, the Graduate Coordinator, and the Dean of the College, and approval of these requests is not automatic; thus, such requests should be avoided if at all possible. These time limits do not apply to financial support. See *Financial Support* section for that information. **Additional extension requests require approval from the Provost.**

### Advisory Committee

The Advisory Committee is the degree granting unit within the Department, and its responsibilities are to guide the student in program development, approve the Program of Study, make recommendations on the Research Proposal, approve the Research Proposal, and administer the appropriate written and oral examinations. The Advisory Committee may approve more requirements in the student's program than the minimum requirements stated in this Handbook (for example, undergraduate courses or foreign language).

The Advisory Committee should be comprised of a Major Professor and at least two Committee members, one of whom may be a Minor Professor. The Advisory Committee is chaired by the Major Professor, who must hold Graduate Faculty status and must be from the Department of

Biological Sciences. At least one of the remaining committee members also must be from the Department of Biological Sciences and must hold Graduate Faculty status. No more than one Committee member may hold a non-Graduate appointment. Any member of the committee can serve as the thesis director, but this usually is the Major Professor.

For non-MSU Committee members, a request for appointment as a Committee Participant must be approved by the Graduate Coordinator or Graduate Committee. Any Committee member from outside the Department should bring some special expertise to the research project that is unavailable within the Department. The Graduate Coordinator must approve the composition of all Advisory Committees. The Graduate Coordinator is an *ex officio* member of all Advisory Committees; if the Graduate Coordinator cannot attend a Committee meeting or oral exam, they may assign a substitute to attend.

***An Advisory Committee must be appointed by the end of the first semester in residence. All students must hold an annual meeting with their Advisory Committee to update the committee on the student's progress. It is the responsibility of the student to tentatively schedule this meeting with their committee within the first two weeks of the semester in which it will be held so that faculty can plan accordingly. The meeting will be documented using the Annual Committee Meeting form unless the meeting is documented by other means (Proposal, Comprehensive Exam/Defense), and provided to the Graduate Coordinator. Failure to hold an annual meeting will result in probation.***

Changes to the committee must be approved by the major professor and the change of committee form with all required signatures must be submitted to the Graduate Coordinator. The form to change committee members can be found on the Graduate School website here: <https://www.grad.msstate.edu/students/forms>

### **Admission to candidacy**

A master's student applies for admission to candidacy when they apply for graduation. The student must apply for graduation by the deadline listed in the Graduate Academic Calendar and must have completed all conditions attached to their admission and fulfilled all requirements of the degree program and the Graduate School.

### **Graduate exams – the thesis defense**

A final Comprehensive Exam is required of all M.S. Degree candidates at MSU. The Thesis Defense also serves as the final Comprehensive Exam. The Graduate Coordinator must be notified of the date for the Comprehensive Exam at least two weeks in advance. The Advisory Committee will administer this exam after all Committee members have evaluated a draft of the thesis. The exam will be oral and will be coordinated by the Major Professor. The oral examination should show: 1) the candidate's thorough familiarity with the literature in the field of major interest; 2) the relation of the special subject to allied subjects; and 3) the level of general knowledge and training, including use of oral and written English.

**The properly formatted thesis must be submitted to the Committee at least two weeks prior to the oral exam.** It is the student's responsibility to ensure that their formatting meets the current requirements set by MSU Libraries. The oral exam will be preceded by a formal seminar presentation of the research activities, results and conclusions. The student also must ensure that the time, date, and location of the research seminar are publicly posted to permit an open and broad audience for the presentation of the student's thesis research. This announcement

should be made in coordination with the Graduate Coordinator or appropriate Biological Sciences office staff member.

**A student must be enrolled at MSU during the semester the Comprehensive Exam is administered, must have at least a 3.0 GPA on all course work after being admitted to the program, including courses not included in the student's Program of Study, and must be within the last six hours or in the terminal semester of course work excluding internship/practicum courses. The student's Major Professor must acquire and submit the Examination Results form to the Graduate Coordinator for signature and submission to the Office of the Graduate School.** Failure to file examination results in a timely fashion can result in serious problems, including delayed graduation. The student is responsible for verifying that examination results are filed with the Graduate School and notifying the Graduate Coordinator of the results.

One negative vote will not constitute failure for a student on a preliminary/comprehensive examination and/or thesis/dissertation defense. Negative votes by two or more of the Advisory Committee members will constitute failure for a student on a preliminary/comprehensive examination and/or thesis/dissertation defense. A student who fails the exam cannot apply to retake it until three months from the date of the original test. Two failures result in the student being dropped as a Master's Degree candidate.

Note that the MSU Libraries provide online access to guidelines for properly formatting theses and dissertations. **Additionally, all graduate students are now required to enroll in LIB9010 during the semester they are submitting their thesis/dissertation.** See the Libraries website for more information or go to: [Office of Thesis and Dissertation Format Review - Mississippi State University Libraries \(msstate.edu\)](#).

### **Residency and transfer credit**

Transfer credit hours from another university may be accepted toward fulfilling requirements for a Master's Degree at MSU provided they were earned in programs fully accredited by the appropriate regional and national accrediting bodies, they contribute to the current program of graduate study, **and** they were taken within the eight-year time limit for the Master's Degree. Courses in which grades of "C" or lower were earned or grades of Pass/Fail or S/U are not accepted for transfer. Transfer credit may not be used to satisfy provisional admission requirements. Transfer credit may not constitute more than twelve semester hours of course work. Transfer credit from one Master's Degree program at MSU toward a second MSU Master's Degree is also limited to a maximum of twelve hours. These policies can be found here in the Graduate Catalog: <http://catalog.msstate.edu/graduate/academic-policies/program-of-study/#transferstext>

<b>MILESTONES FOR MAINTAINING SATISFACTORY STATUS – M.S. DEGREE</b>	
<b>First Semester</b>	<b>Second Semester</b>
Maintain minimum 3.0 GPA	Program of study
Committee Request Form	Approved Research Proposal

Students should attempt to submit required documentation by the 12<sup>th</sup> week of the Fall or Spring academic semester (approximately the deadline for application for graduation), in order to avoid delays resulting from the increased demands on faculty time beyond that date. Students should realize that difficulties associated with delaying efforts at completing requirements may result in missed deadlines and potential loss of Departmental support. Adherence to these deadlines

also may be taken into consideration when TA assignments are made, requests for extended financial support are made, etc.

It is extremely important to note that the College Dean needs to sign off on the thesis/dissertation document (already signed off by the committee) at least one week prior to the library deadline. Deadlines for thesis/dissertations will routinely be mailed out to students. Failure to meet these deadlines can result in you not graduating on time and can lead to significant out-of-pocket costs if you have to pay for one hour of credit the following semester.

## PH.D. DEGREE

### General

Mississippi State University requires a minimum of 54 credit hours beyond undergraduate coursework before a Ph.D. can be awarded. At least 24 credit hours must be from GPA-graded graduate coursework. At least 9 of the 24 hours **must be equivalent to courses at the 8000 level or higher (i.e., graduate-only courses)** also, see General Degree Requirements regarding BIO 7000: Directed Individual Study. The Ph.D. program in Biological Sciences normally consists of at least 20 hours of research hours (**BIO 9000**, under the appropriate faculty member), two hours of BIO 8011 and ST 8114 or appropriate substitute. The Advisory Committee must approve substituting another statistics course. Appropriate substitutes must minimally be 8000-level three credit hour courses that are GPA graded. In addition, doctoral students are strongly encouraged to take an additional advanced statistics course in their particular area of research emphasis. A minor is optional and will be declared based upon the recommendations of the Advisory Committee and student career goals. At least 12 credit hours in addition to that required for the major (no overlap between the major and minor), and consent of the Graduate Coordinator from the minor area are required. Further, the Advisory Committee must include a member of the Graduate Faculty from the minor area. Appropriate graduate coursework taken in an M.S. program will be counted toward the Ph.D. at the discretion of the Advisory Committee. Courses taken in previous graduate work that fulfill current degree requirements but are not part of the program must be listed on the Program of Study Attachment Sheet to record the student's fulfillment of these requirements.

The Ph.D. research represents a highly independent and original investigation into which the student has had the major input and, ideally, would be submitted for potential publication in the peer-reviewed scientific literature. The Advisory Committee must approve the following: Program of Study, the Research Proposal, the Comprehensive Exams, the written dissertation and the oral defense.

### Time Limit

After a student begins the Ph.D. program, they must complete the program within five years of passing the Comprehensive Examination. All courses included on the Program of Study must be current at the time of completion of the degree, i.e. taken within eight years of the proposed graduation date. A typical time period for the doctorate ranges from three to five years, and conditions on extensions apply as for Master's degree students. An extension of time form, available on the Graduate School website, can be used to request a one-time, two-year extension. The request must be signed by the Major Professor and the dean of the college and submitted to the Office of the Graduate School. Approval of these requests is not guaranteed; thus, such requests should be avoided if at all possible. These time limits do not apply to financial support. See *Financial Support* section for that information. Additional extensions can be acquired only under extenuating circumstances and require approval from the Provost.

## Continuous Enrollment

Students are required to remain continuously enrolled from the start of their program. Continuous enrollment is defined as enrollment in two of three semester terms (Fall, Spring, or Summer). Except in cases wherein students secure an official leave of absence, students who fail to meet these requirements will be deemed inactive after the second semester. To be readmitted, students must apply for readmission to the program in which they were enrolled and to the Graduate School. Readmission is not guaranteed and must be approved by the Graduate Coordinator, Department Head (if applicable), Academic Dean, and Dean of the Graduate School.

## Advisory Committee

The Advisory Committee is the degree granting unit within the Department, and its responsibilities are to: guide the student in program development, approve the Program of Study, make recommendations on the Research Proposal, approve the Research Proposal, and administer the appropriate written and oral examination. The Advisory Committee may approve more requirements in the student's program than the minimum requirements stated in this Handbook (for example, undergraduate courses or foreign language).

The chair of the Advisory Committee (the Major Professor) must hold Graduate Faculty status and must be from the Department of Biological Sciences. A student without a minor must have a committee composed of the Major Professor and at least three additional members. If the student has a minor, the committee must be composed of at least five members: the Major Professor, the Minor Professor, who must be listed as Graduate Faculty in the minor area, and at least three other members. All committee members must hold Graduate or approved non-Faculty appointments with at least one-half holding a Graduate Faculty appointment. **At least one additional of all committee members must be from the Department of Biological Sciences.** Any member of the committee may be the dissertation director but is usually the Major Professor.

For non-MSU Committee members, a request for appointment to the Committee must be acknowledged by the Graduate Coordinator or Graduate Committee. Any Committee member from outside the Department should bring some special expertise to the research project that is unavailable within the Department. The Graduate Coordinator must approve the composition of the Advisory Committee. The Graduate Coordinator is an *ex officio* member of all Advisory Committees; if the Graduate Coordinator cannot attend a Committee meeting or oral exam, they may assign a substitute to attend.

***An Advisory Committee must be appointed by the end of the first semester in residence. All students must hold an annual meeting with their Advisory Committee to update the committee on the student's progress. It is the responsibility of the student to tentatively schedule this meeting with their committee within the first two weeks of the semester in which it will be held so that faculty can plan accordingly. The meeting will be documented using the Annual Committee Meeting form unless the meeting is documented by other means (Proposal, Comprehensive Exam/Defense) and provided to the Graduate Coordinator. Failure to hold an annual meeting will result in probation.***

## Admission to candidacy

A student admitted into a degree program is not yet a candidate for that degree. Candidacy usually is achieved in the Ph.D. program once specific requirements have been met. Guidelines for candidacy can be found in the Graduate Catalog (<http://www.catalog.msstate.edu/graduate/>). A Ph.D. student is admitted to candidacy after the student's Research Proposal has been approved, all required coursework is completed, the Graduate School approves the final Program of Study, and the comprehensive exam is passed.

Course work is deemed satisfactorily completed if the student is in good standing, and the student has a "C" or better in all courses on the student's approved Program of Study. The student and the Advisory Committee usually agree upon the necessary Graduate course work within the first semester of the student's program. This agreement is formalized in the Program of Study. Required course work may include courses that address deficiencies in the student's academic record. The Program of Study refers to courses **required** by the Advisory Committee, rather than all courses that a student may take while in the program. The Final Program of Study reflects course work completed or in progress towards the Ph.D., including any course changes and/or substitutions that the student made to the original Program of Study that were approved by their Advisory Committee. The Graduate School does not confer candidacy until final acceptance and approval of the Program of Study.

Unlike other programs accommodated in the Graduate Catalog, the Department of Biological Sciences does not have a formal "research skills requirement;" such skills are addressed in the Program of Study or through laboratory training.

The Department of Biological Sciences does not have preliminary or qualifying exams, but we do require successful completion of a Comprehensive Examination by the student's Advisory Committee. Guidelines for the Comprehensive Examination are provided below.

Upon completion of these conditions, the Admission to Candidacy form should be sent to the Office of the Graduate School with the examination results.

### **Graduate exams – Comprehensive Examination**

Ph.D. students must successfully complete a Comprehensive Examination that is administered by all members of their Advisory Committee before they are admitted to candidacy. The student may not take the Comprehensive Examination until they are within six credit hours of completing the coursework listed on the Program of Study. These exams must be attempted by the end of the student's sixth program semester. **Failure to meet this deadline may result in the dismissal of the student from the Ph.D. program, and loss of financial support.** It is also worth noting that some forms of financial assistance require Ph.D. student applicants to have achieved candidate status, which is possible only after completing the comprehensive exams (and other requirements as specified above). Thus, it is in the student's best interests to complete this exam as early as possible; the fourth or fifth semester of studies is a recommended target for exam completion. In the event that extenuating circumstances should arise, the student must appeal to the Graduate Committee for an extension **before** the deadline for completing the exams. ***Finally, the examination must be passed two semesters prior to graduation.*** This means the examination must be passed before the end of the prior Spring semester if a student intends to graduate in December; before the end of the prior Summer semester to graduate in May; and before the end of the prior Fall semester to graduate in August.

The Comprehensive Examination is composed of written exams, and a single comprehensive



oral exam. The student should consult their Major Professor and members of the Advisory Committee when scheduling written examinations and the oral exam.

When the examination is scheduled, the student's CAPP/Degree Works Compliance must be complete and the committee request form submitted to the Graduate School. Following date selection for the exam, the Advisory Committee members will have two weeks to determine the nature of their written exams before providing instructions to the student on preparing for the written exams and scheduling a date for completion. The student will have no more than six weeks to complete the written exams after receiving instructions from the Advisory Committee, and no more than eight weeks from declaring their intent to complete the Comprehensive Exams. The comprehensive oral exam must take place within ten business days of the completion of the written exams. Hence, the exam period from declaration to completion of the oral exam must span no more than 10 weeks. Note that the date of the oral exam must be stated on the declaration form.

The student should coordinate with the Advisory Committee to determine how, when, and where each portion of the written exam and the oral exam should be completed. This should be done after consultation with the Major Professor. The outcome of the Comprehensive Exam, both the written and oral components, will be determined by a simple majority vote of the Advisory Committee members. **The student's Major Professor must acquire and submit the Examination Results form to the Graduate Coordinator for signature and submission to the Office of the Graduate School.** Failure to file examination results in a timely fashion can result in serious problems, including delays in acquiring candidacy and loss of financial support. The student is responsible for verifying that examination results are filed with the Graduate School and notifying the Graduate Coordinator of the results.

Under special circumstances the Advisory Committee may conclude that the student passes the exam upon a contingency. This should be discouraged as the exams are designed to determine whether a student has acquired a requisite knowledge base. Either they have, and should pass, or have not, and fail. If contingencies are placed on the student, the student will have two weeks to satisfy these conditions, or the exam will be deemed failed.

**A student must be enrolled at Mississippi State University during the semester in which the examination is administered and must have a 3.0 GPA across all courses attempted for graduate credit after being admitted to the degree program.** This includes courses taken for graduate credit that are not included on the Program of Study. When the student and Advisory Committee select a date for the examination, the student's Program of Study must be up to date. If required, an updated Graduate Program of Study form should be submitted at this time.

A student who fails this examination cannot apply to take the exams again until three months have elapsed from the date of the original oral examination. However, failure may result in receiving a "U" in research hours and probation, which would delay the ability to retake the examination until the semester following the probationary period. Two failures on this examination will result in dismissal from the Ph.D. program, and the Graduate School. Hence, students interested in switching to the M.S. program should consider doing so after failing the Comprehensive Examination the first time. Students dismissed from the program would have to reapply to the Graduate School to pursue an M.S. or any other degree at Mississippi State University. The requirements for switching to an M.S. program can be found in the Change of Degree Level section of this handbook.

## Graduate exams – Defense of dissertation

The dissertation is required of all candidates for the doctorate. The dissertation must show 1) mastery of the techniques of research and 2) a distinct contribution to the field under investigation and study. The student's Advisory Committee must approve the dissertation topic, the outline, and the final submission of the dissertation. Thus, expectations will vary from student to student. **A student must be enrolled at MSU during the semester the dissertation defense, must have at least a 3.0 GPA on all course work after being admitted to the program, including courses not included in the student's Program of Study, and must be within the last six hours or in the terminal semester.**

The final oral exam will be a defense of the dissertation and any qualifiers remaining from the comprehensive exam. **The properly formatted dissertation must be submitted to the Advisory Committee at least two weeks prior to the exam defense. The oral exam will be preceded by a formal seminar presentation of the research activities, results, and conclusions.** The student also must ensure that the time, date, and location of the research seminar are publicly posted to permit an open and broad audience for the presentation of the student's thesis research. This announcement should be made to the department in coordination with the Graduate Coordinator or appropriate Office Staff member two weeks in advance of the exam.

One negative vote will not constitute failure for a student on a preliminary/comprehensive examination and/or thesis/dissertation defense. Two negative votes will constitute failure for a student on a preliminary/comprehensive examination and/or thesis/dissertation defense. A student who fails the final examination cannot apply to defend again until a period of three months has elapsed from the date of the original examination. Two failures on the final examination will result in the student being dropped from further consideration as a doctoral candidate.

Note that the MSU Libraries provide online access to guidelines for properly formatting theses and dissertations. See the Libraries website for more information or go to: Office of Thesis and Dissertation Format Review - Mississippi State University Libraries (msstate.edu).

## Graduate exams – Re-take of the exams/defense

In the case of failure to pass the Comprehensive Exam or the defense, a schedule for re-taking the exam/defense will be at the discretion of the Major Professor and the Advisory Committee. In compliance with the Graduate School policy, the Ph.D. exam/defense cannot be re-taken sooner than three months after the first attempt. Two failures on either of these exams will result in the student becoming ineligible to continue graduate studies in the Department of Biological Sciences.

## Residency and transfer credit

There is no specific on-campus residency requirement. However, Ph.D. students will be required to complete one-half of required course work and all dissertation credits from Mississippi State University. Transfer credit hours from another university may be accepted toward fulfilling requirements for a doctoral degree at MSU provided they were earned in programs fully accredited by the appropriate regional and national accrediting bodies, provided they contribute to the current program of graduate study, and provided they were taken within the eight-year time limit for the doctoral degree. One-half of the course work may be transferred

and must be approved by the Advisory Committee. Courses in which grades of “C” or lower were earned or grades of Pass/Fail or S/U are not accepted for transfer. One-half of the course work exclusive of dissertation credit hours and all dissertation credit hours must be taken from Mississippi State University. Transfer hours may not be used to satisfy provisional admission requirements. Please refer to the Graduate School Policy for transfer credit:  
<http://catalog.msstate.edu/graduate/academic-policies/program-of-study/#transferstext>

<b>MILESTONES FOR MAINTAINING SATISFACTORY STATUS – PH.D. DEGREE</b>			
<b>First Semester</b>	<b>Second Semester</b>	<b>Fourth Semester</b>	<b>Sixth Semester</b>
Maintain minimum 3.0 GPA	Program of Study	Approved Research Proposal	Comprehensive Exams
Committee Request Form	Pre-Proposal and committee meeting		

It is further recommended that students attempt to complete all courses in the Program of Study by the end of the fourth semester and the comprehensive written and oral examinations by the end of the fifth semester. Application for candidacy then should follow immediately after successful completion of the Comprehensive Exams.

Students should attempt to submit required documentation by the 12<sup>th</sup> week of the Fall or Spring academic semester. This is approximately the deadline for applying for graduation. Meeting this expectation should prevent delays resulting from the increased demands on faculty time beyond that date. Students should realize that difficulties associated with delaying efforts at completing requirements might result in missed deadlines and potential loss of Departmental support. Adherence to these deadlines may be taken into consideration when TA assignments, and requests for extended financial support are made.

It is extremely important to note that the College Dean needs to sign off on the thesis/dissertation document (already signed off by the committee) at least one week prior to the library deadline. Deadlines for thesis/dissertations will routinely be mailed out to students. Failure to meet these deadlines can result in you not graduating on time and can lead to significant out-of-pocket costs if you have to pay for one hour of credit the following semester.

#### **CHANGE OF DEGREE LEVEL**

There are occasions when students may wish to change from the M.S. degree to Ph.D., or vice versa. This change must be initiated first by communication with the Major Professor. Note that the PI is not required to accommodate a student’s wish to change degree level.

The student should prepare a letter explaining why they are interested in changing programs and submit that letter and a CV to the Departmental Graduate Committee. If the Major Professor is supportive of the proposed change, then it is appropriate that they will also prepare a letter indicating support for the change in program with specific justifications for the change for submission to the Department Committee. These letters should address the benefit of the change of program to the student's future plans.

A student who has completed a Master’s proposal successfully is exempt from the Ph.D. pre-proposal requirement. However, a change from M.S. degree to Ph.D. degree program will require approval of a new full Research Proposal, reflecting the broadened scope of research.

That proposal should be submitted to and approved by the new Advisory Committee within four semesters from when the M.S. degree began, or two semesters after switching programs, whichever is later. The Change of Committee and Program of Study forms should be submitted immediately during the **semester the change occurs**.

If a new Research Proposal is required for students changing from Ph.D. to M.S. degree program, it should be submitted and approved **within one semester** of the degree program change, along with the Change of Committee form and the updated Program of Study.

***Failure to meet these deadlines may result in loss of financial support from the department.***

Once the Biological Sciences Graduate Committee acknowledges the request for change in degree level, a Request to Change Degree Level form should be completed by the student and submitted through the Graduate Coordinator. That form can be found on the Office of the Graduate School web pages.

## GRADUATE STUDENT ADVISING AND EXPECTATIONS

### MAJOR PROFESSOR

The department operates on a direct admissions model, which means, before arriving on campus, entering graduate students will have contacted a faculty member who has agreed to serve as Major Professor (also referred to as PI or advisor). Having a named Major Professor is a requirement of the Biological Sciences Graduate Program and a student cannot start a semester without one. If for some reason the student is without an advisor at any stage of the program, they must identify a new one prior to the start of the next semester (fall or spring) according to the necessary protocol described below. ***Failure to meet this deadline will result in dismissal and loss of financial support from the department.***

The Major Professor assists the student in choosing members of the Advisory Committee and developing a Program of Study, provides research space, guides the formulation of a Research Proposal and the conduct of the research project, and assists in providing resources for the research project.

### DEADLINES, EXAMINATIONS AND MILESTONES

Throughout the MS and PhD degree programs there are deadlines and milestones that must be met. It is ALWAYS the student's responsibility to know when those deadlines are, regardless of whether they are departmental or university based, and to coordinate with their Major Professor and Advisory Committee to ensure these milestones are completed at the appropriate time. It is recommended that every student review their milestone progress with their Major Professor at a minimum every semester.

### PROBATION

As per the Graduate Catalog, a graduate student should be placed on probation by the department when academic deficiencies occur, but the student can still potentially meet all degree requirements successfully. Besides the academic deficiencies noted below, this also includes failure to meet a departmental or programmatic requirement. In the Biological Sciences Graduate Program only one instance of probation is permitted. Students are subject to dismissal from the program upon receiving a second notice of probation for any reason.

### QUALITY OF ACADEMIC WORK

Graduate students must maintain a minimum 3.0 grade point average (GPA) for all courses after admission to the program. Failure to do so will result in the student going on probation the following semester. Likewise, students receiving a grade of "U" in courses graded as Satisfactory/Unsatisfactory will go on probation the following semester.

Only one "C" grade will be accepted for credit. In the event the student's GPA drops below a 3.0 as the result of receiving one "C", one course can be repeated, with submission and approval of the Request to Retake a Course form through the Graduate School. It may also be necessary for another course to be substituted at the request of the student's committee.

Failure to demonstrate satisfactory progress toward completion of degree requirements will result in dismissal from the graduate program. Earning two "C" grades or one "D" or "F" grade is grounds for dismissal. In extenuating circumstances, a student that has earned a second "C", or

a single “D” or “F”, may petition the Graduate Committee to retake one course. The petition must be made within five days of the final release of grades, and the Graduate Committee will answer the petition within five business days. Even in the case of approved retakes, the student must submit a Request to Retake a Course form through the Graduate School. Students allowed to remain in the program under such circumstances will be placed on probation. All grades earned are used to calculate the student’s GPA.

If the student goes on probation, they will have one semester in which to retain an assistantship. During the probationary semester, the student must be enrolled in approved program requirements, courses on the approved Program of Study, or, if the program has not yet been approved, in courses appropriate for the program. Courses taken during the probationary period should not include Directed Individual Study (BIO 7000) hours. ***If such courses are taken during the probationary period, they will not be used in evaluating academic progress during probationary status.*** In order to be removed from probationary status, the cumulative GPA must reach 3.0 or higher no later than the end of the probationary semester, and the student must not receive additional “U” grades. If the student does not meet these requirements during the probationary semester, the student shall be dismissed from the program.

Should a student’s performance meet the requirements for probation in the Department of Biological Sciences a second time, the student will be dismissed from the program.

#### **QUALITY OF RESEARCH WORK (BIO 9000 S/U GRADE)**

During the application process for the Biological Sciences Graduate Program, the student and advisor are essentially entering into an agreement to work together. As part of that agreement, the student has the right to expect fair and consistent expectations of workload and progress, while the advisor also has the right to expect consistent and appropriate effort from the student in pursuing their agreed upon research goals. Those expectations on both sides should be clearly articulated before the student begins the program. However, the exact nature of the work required, the time required to complete it, and the technical demands of it, may vary from one research project to another within and among labs. Thus, student experiences will differ depending on the data, analyses, and writing required by their project and lab. The expectations for workload and progress are set by the advisor and the student will be informed of them and their progress towards meeting them. For any semester when research credit hours (BIO 9000) are being accrued by the student, the advisor must complete an S/U grade determination at the end of the semester. In order to meet the “Satisfactory” performance rating the student should have completed agreed upon progress towards their research goals. The documented failure to meet those goals may result in the grade of “U” (unsatisfactory) at the advisor’s discretion. Following the receipt of a “U” grade for BIO 9000 the student will immediately be placed on probation for the following semester, consistent with the “Quality of Academic Work” section in this handbook. Subsequent restoration of non-probationary status will be dependent on satisfactory quality of research work in the following semester. If the student receives a second “U” grade for unsatisfactory work, or any other reason noted in the “Quality of Academic Work”, the student will be dismissed from the program. A graduate student who wishes to appeal a grade should refer to the MSU Grade Appeals Policy, Academic Operating Procedure (AOP) 13.14

#### **APPLICATION FOR DEGREE**

A candidate for a degree must apply online by the final date set by the Registrar for the semester they intend to graduate and pay the required fee. The Graduate Academic Calendar

in the Graduate Catalog (<http://catalog.msstate.edu/graduate/>) provides deadlines and fees. Deadlines also are found online on the Office of the Graduate School website and on the MSU Academic Calendar.

### GRD 9011

Graduate students who pass the thesis/dissertation defense by the end of a semester (defined as the last day of Final Exams by the Graduate School) and meet all other graduation requirements except the deadlines for thesis/dissertation submission to the Library may adhere to the following procedure so as to graduate the next term.

- Ensure that all degree audit documents have been received by the Graduate School. Graduate School staff will verify eligibility for the course and enter an override to permit qualified students to register.
- Enroll in the one-credit hour course (GRD 9011 Graduate Degree Completion) for the semester following the defense. The course holds an associated fee of \$100. Students are allowed to enroll in the course only one time.
- Students enrolled in the course must meet all of that semester's Library submission and graduation application deadlines.

### FINANCIAL SUPPORT

Stipends for the support of graduate study are available in the forms of Research Assistantships, Service Assistantships, and Teaching Assistantships. Graduate School policy dictates that recipients of assistantships of any form be enrolled for at least nine credit hours during the fall and spring terms, and, for 12-month assistants, at least three credit hours for each summer term. Students must be officially accepted by the Graduate School to be eligible for financial support, and ***students are ineligible to hold any graduate assistantship while in the provisional status.***

***Note that financial support may be withdrawn following failure to meet any one of the aforementioned deadlines.***

Research Assistantships will be awarded based on the recommendation of the faculty member providing the funding. Teaching Assistantships to entering students will be recommended by the Graduate Committee based on the student's credentials, undergraduate teaching laboratory needs, and sponsorship of the potential Major Professor. First consideration for assistantship support will be given to those students eligible for regular admission.

All prospective teaching assistants are required to participate in the appropriate Teaching Assistant Workshop(s) prior to beginning their first assignment as a teaching assistant. During the Teaching Assistant Workshops, students are certified at a level that corresponds to the responsibilities and duties of the assistantship appointment. The Teaching Assistant Workshops are designed to introduce students to the techniques and skills necessary to be effective instructors in the University environment and promote excellence in undergraduate education at Mississippi State University. Additional information on the Teaching Assistant Workshops is available online at the Office of the Graduate School web pages.

In general, the duties of a Teaching Assistant will include teaching laboratory sections under the immediate supervision of a faculty member responsible for a given course and under the

broader supervision of the departmental Graduate Coordinator and Department Head. The teaching done by Graduate Assistants is an important contribution to the functioning of the department. Failure of not performing TA duties can result in loss of funding from the Department. Such failures include but are not limited to being absent from scheduled TA meetings or TA assignments (without notifying the instructor of record) and inappropriate conduct toward fellow Teaching Assistants or students. When an individual accepts the responsibility of instruction, they are expected to perform in a professional and responsible manner. Every attempt will be made to match the Teaching Assistant to an appropriate laboratory with respect to their major interest, but this will not always be possible. The Teaching Assistant is expected to adequately prepare himself/herself for all assigned teaching duties.

***All students and prospective Major Professors should realize that Departmental Teaching Assistantship support will not be provided to students who do not satisfy the TA training criteria outlined above.***

Assistantships are awarded to entering students for ***no longer than three years for M.S. students, and five years for Ph.D. This time limit is independent of whether support by RA and/or TA mechanisms.*** A request for additional support beyond the three- or five-year time frames can be made to the Graduate Committee, who will make a recommendation to the Department Head. The student and the Major Professor must provide substantial written evidence that an extension is warranted. A student must be making documented satisfactory progress toward completion of the degree to retain financial support. Documentation of satisfactory progress must include semester or at least annual evaluations of the student meeting expectations conducted by the student's Major Professor. The Graduate Coordinator may make annual evaluations of student progress following requests for additional support.

Master's students whose requests for extension are approved would receive a one-semester extension. They then would be required to submit another request for one more semester, if needed to complete their degree. The second request would need to provide detailed information on progress during the extension and a proposed timeline for completing the degree.

Doctoral students whose requests for extension are approved would receive a two-semester extension. They then would be required to submit another request for two more semesters, if needed to complete their degree. The request would need to provide detailed information on progress during the extension and a proposed timeline for completing the degree. Students would not be eligible to receive more than two extensions (two additional semesters for M.S. students, four additional semesters for Ph.D. students), except under extenuating circumstances, and depending on availability of funds.

### **APPROVAL FORMS**

The Office of the Graduate School maintains electronic copies of all necessary forms on its web pages. These may be accessed through: <http://www.grad.msstate.edu/admissions/forms/>. The various internal forms that may be specific for the Biological Sciences Graduate Program, such as the Annual Committee Meeting form and Program of Study form can be found on the Biological Sciences website: <https://www.biology.msstate.edu/degree-programs/graduate-programs>.

### **ACADEMIC ETHICS**



MSU AOP 12.07 (<https://www.policies.msstate.edu/policy/1207>) codifies the MSU Honor Code, and addresses, in great detail, acts that constitute Academic Dishonesty and the range of potential sanctions resulting from violations. This AOP establishes the authority of Graduate Advisory Committees to assign sanctions that include removal from the University. Students should familiarize themselves with this policy in its entirety.

## RESEARCH ETHICS

Ethics in research and scholarly activities are addressed in MSU OP 80.02, as follows:

“Anyone having reason to believe that a member of the faculty, staff, or student body has engaged in misconduct in research or other scholarly activity should consult informally in person with the Research Ethics Review Officer. If the result of such discussion confirms the seriousness of the allegation, the matter then shall be reported by the Research Ethics Review Officer, in writing, to the department head of the respondent, their dean and vice president (hereinafter to be referred to as appropriate vice president), the Vice President for Research and Economic Development, and the respondent. The identity of the complainant will be kept confidential during the inquiry.”

However, violations of research ethics are to be treated separately from violations of the Academic Honest policy, as follows: " Further, the disciplinary section of this policy is not intended to relate to appropriate sanctions or disciplinary actions to be imposed upon students for misconduct that is subject to other university policies such as the Student Code of Conduct and the Student Honor Code."

Additional guidance for students involved in violations of research ethics states “A finding which includes student misconduct, and a complete copy of the record, shall be forwarded by the Research Ethics Review Officer to the Dean of Students for consideration of whether further action is warranted for the student.”

Disciplinary action of students found guilty of research ethics violations includes one or more of the following:

1. Letter of reprimand
2. Removal from particular project
3. Special monitoring of future work
4. Probation
5. Suspension
6. Salary reduction
7. Rank reduction
8. Termination of employment

Students should familiarize themselves with this policy in its entirety. Students also are strongly encouraged to participate in one of the University Research Ethics training programs. In fact, some federal funding sources require such training for students supported with grant funds.

## STUDENT GRIEVANCE PROCESS

Occasionally, cases arise in which the student and advisor do not agree on a path forward. Every effort should be made to resolve these disagreements between the individuals but in situations where agreement is not possible the student may file a complaint with the Graduate Committee via the Graduate Coordinator), or the Department Head in cases where a conflict may exist with a member of the Graduate Committee. When the Graduate Committee or the Department Head determines that the grievance merits further consideration, the Major Professor/Advisor will be afforded an opportunity to respond to the complaints. In all instances, information supporting any allegations should be brought to the Graduate Committee or the Department Head. This information could include laboratory notebooks, electronic correspondence, or other such documents that support the student's allegations. After hearing from both parties, the Graduate Committee will report its findings to the Department Head – or vice-versa where the Department Head hears the grievance.

If this internal grievance procedure is inadequate to solve the dispute then the student is directed to MSU AOP 12.37 "Graduate student academic grievance procedures" for further assistance. Note that specific complaints regarding grading for courses or research hours are covered by AOP 13.14 "Grade appeal and Academic Review Board".

Students should be aware that issues relating to civil rights including, but not limited to, discrimination, disability accommodations, or sexual misconduct may be reported directly to the MSU office of civil rights compliance as per MSU policy 03.03. MSU is committed to complying with Title IX, a federal law that prohibits discrimination, including violence and harassment, based on sex. This means that MSU's educational programs and activities must be free from sex discrimination, sexual harassment, and other forms of sexual misconduct. If you or someone you know has experienced sex discrimination, sexual violence and/or harassment by any member of the University community, you are encouraged to report the conduct to MSU's Office of Civil Rights compliance at 662-325-5839 or by e-mail to [titleix@msstate.edu](mailto:titleix@msstate.edu). Additional resources are available at <https://www.civilrights.msstate.edu/title-ix-sexual-misconduct>.

As part of their "Performance Management Toolkit," MSU Human Resources Management has posted a web page with resources for use of "Positive Direction" when dealing with workplace issues. On this page (<http://www.hrm.msstate.edu/performance/positive/>), there is information on employee expectations, manager responsibilities, and examples of acceptable means by which managers should respond to workplace disputes. Students might find this a useful resource in attempting to prevent conflict that could result in damage to the student-advisor relationship.

## ENDING THE STUDENT-ADVISOR RELATIONSHIP

For a number of reasons, the relationship between a graduate student and their advisor can end before the completion of a student's degree program. When this occurs faculty and the student must adhere to the specific guidelines in this section. The result may be that the student transitions to a different advisor, or that they leave the Department entirely. The decision of a student to leave a lab, or of an advisor to no longer allow that student to be part of their lab, may be taken unilaterally. No permission is required for this relationship to be terminated by either party. Whenever a separation decision is made by one party, the initiator (student or PI) will inform the other party and the Graduate Coordinator immediately. These communications are required to be documented by formal written and dated hard copy, or by email from an MSU

account. Text messages or verbal communications are not sufficient.

### Re-Application Following Separation

In the Biological Sciences program, a student without an advisor cannot continue and is subject to dismissal from the program if no replacement advisor is found by the beginning of the semester following separation. In order to remain in the program, the student must go through an internal re-application to the Biological Sciences graduate program. **This requires submission of the following materials to the Graduate Committee for review, along with the Request for Re-Application Form: a cover letter, reapplication form, current CV, and MSU unofficial transcript.** Previous student evaluations will also be considered by the faculty. The cover letter should explain the circumstances of the separation from the advisor. Note that the advisor will be asked to provide to the committee their report on the circumstances that led to the separation. In their letter, the student should suggest other potential advisors within the program. Faculty cannot/will not consider requests to join their labs from students currently in the lab of another PI and will refer students to the process described above.

Re-Application materials must be submitted to the Graduate Coordinator by the student and advisor within two calendar weeks of the decision to terminate the relationship. The Graduate Committee will review the materials and make a recommendation no later than one calendar week after receiving Re-Applications. If the current advisor is a member of the Graduate Committee then they will recuse themselves from considering this re-application.

Following review of the Re-Application materials and the report from the prior advisor, the committee will render one of three judgements:

1. Continuation approved without probation.
2. Continuation approved with probation (applied to the upcoming Fall/Spring semester).
3. Continuation denied (program dismissal recommended).

For the semester during which a student is separated from a faculty member involuntarily, the student may receive a "U" grade for any BIO 9000 Research hours credit enrolled for, which would also result in probationary status for the following semester. If probation is also recommended by the Graduate Committee during Re-Application review this would still result in a single semester of probation. If this is the second semester of probation for any reason, the student will be subject to dismissal from the program. Any voluntary separation initiated by the student mid-semester may also result in a "U" for BIO 9000 at the advisor's discretion, if research goals were not met prior to separation and the separation is initiated after the date noted in the MSU calendar as "Last day to drop a class with a W", also defined as the 36<sup>th</sup> class day.

Whether the former or new advisor is responsible for the grading of research hours will depend on whether the request to switch labs was initiated before or after the "W drop date", above. Therefore, such considerations should be made prior to the beginning of or early in the semester, which would allow a student to drop current and add new research hours under the new major professor. Changes made after the add/drop date for that semester will result in retroactive add/drop fees, which will be the responsibility of the student.

If continuation is approved, with or without probation, the student may then proceed to seek a new advisor among the Graduate Faculty in the Biological Sciences Department. Note that the Re-Application materials containing both the student's and former advisor's comments will be available for all program faculty to view. Also, be aware that approval for continuation does not

guarantee that a new advisor can be found, and faculty are under no obligation to accept a student even if the Graduate Committee approves continuation. The student **MUST** identify a new advisor prior to the beginning of the following (spring or fall) semester to remain in compliance with program requirements. Any Teaching Assistantship offer, or continuation of a TA, will be rescinded if the student is not in compliance.

If an alternative advisor is identified within the Department, the student's status in the Department can remain unchanged and the student can continue in their existing degree program. However, if they are on probation for having received a "U" for their research hours (BIO 9000) or as directed by the Graduate Committee decision, they will need to receive an "S" for their research hours the following semester from their new advisor (and not be subject to probation for any other reason). Students should also be aware that with the change in laboratory they will likely need to assemble a new committee and adjust their anticipated graduation date. Generally, it will not be possible for a student to take a previous project to a new laboratory. Most likely the student will be required to prepare a new research project.

### **Financial Support during Re-Application and after continuation decision**

TA support is independent of advisor and so a student moving from one advisor to another does not affect the TA duties and obligations. The student is, therefore, expected to continue their full obligations throughout the separation and committee review process. The student may continue as a TA if continuation in the program is approved as long as they have a new mentor in the Biological Sciences Department prior to receiving any future TA for the following semester. However, Research Assistantship funding does not convey with the student and a former PI may terminate that support at their discretion once the Graduate Committee has rendered a decision on Re-Application, regardless of whether continuation is approved or not.

Failure to identify a new advisor before the onset of the following Spring or Fall semester will result in dismissal from the program and loss of eligibility for support on a TA or RA. This applies even if the following semester was originally included in a TA/RA offer letter as support is dependent on the student being in good standing. Students leaving the Biological Sciences Department may apply to transfer to another degree program within MSU. In such cases it is unlikely any support received by the student through Biological Sciences would be continued. Students leaving MSU for any reason are no longer eligible for any assistantship through the Biological Sciences Department.

### **Appeals**

A student may appeal the result of the Re-application decision. The only method of appeal will be to initiate the Graduate Student Grievance Procedure noted above. Please see AOP 12.37 for further information.

### **Documentation for Changing Advisors**

Following Re-Application and the identification of a new advisor, the Advisor Change form must be completed, with the acknowledgement prior and new Major Professors and the Graduate Coordinator.

## **RETALIATION**

As per MSU OP 03.03, retaliation includes any intimidation, coercion, discrimination, threat, or other action against any individual that would deter a reasonable person from reporting, testifying, assisting, or cooperating with an investigation or proceeding. This includes any operational component of the Graduate Program, including the re-application of the student and the consideration of this by the Graduate Committee. Interference in this departmental process by the prior faculty advisor is strictly prohibited beyond providing their written assessment of relevant events to the department's Graduate Committee, as is behavior on the part of the student that could serve to target any faculty member, staff or student, and either instance could be regarded as retaliation. Retaliation is an independent basis for disciplinary action, regardless of the outcome of the underlying complaint. Therefore, independent of the cause of separation, both student and faculty will accept that any form of behavior that could be construed as retaliation in either direction is unacceptable, even if this occurs after the student's case has been formally resolved by the Graduate Committee. Any such retaliation should be reported immediately to the Director of Civil Rights Compliance. As noted in policy 03.03, sanctions imposed for making a deliberately false report or providing false information in bad faith in the course of an investigation or hearing do not constitute retaliation.

## COMPUTATIONAL BIOLOGY STUDENTS

The Department of Biological Sciences is committed to supporting the cross-college Computational Biology Program at Mississippi State. Faculty in this department were heavily involved in the program conception and development, and we host in this department the largest concentration of computational biology faculty on campus. As part of this integration Comp Bio students working in Biological Sciences faculty labs enjoy some benefits that are not available to any other non-BIO students, namely they are eligible for our departmental travel awards, departmental support for their applications for funding through TAGGS or A&S and, most importantly, Comp Bio students are treated exactly the same as BIO students in terms of TA eligibility.

Because of that deeper integration, Comp Bio students are also subject to some of the procedures noted above. Specific programmatic milestones or requirements such as required coursework, when you have to take an exam, the mandated frequency of committee meetings, or how to prepare your Program of Study, are handled by your program and you should refer to that handbook. It is always the student's responsibility to know the expectations of their program.

However, when it comes to operational expectations within the department, all students working in labs in Biological Sciences are expected to comply. This means that students in the Computational Biology Program are subject to a number of the sections listed above, with some noted modifications, namely:

- Quality of Research Work
- The limitations on financial support. All students will require extensions to be able to request a TA beyond those limits.
- Academic Ethics.
- Research Ethics.
- Student Grievances. Note that "Graduate Committee" in this case refers to the Committee for Computational Biology, not Biological Sciences, and that Department Head is replaced with Program Coordinator (Dr. Andy Perkins).
- Cessation of the Student-Advisor Relationship. Note that once separated, voluntarily or involuntarily, from a Biological Sciences PI, the student must return to the Computational Biology Program to seek guidance before continuing to discuss other opportunities in Biological Sciences. Faculty in this department will be expected to reach out to the Computational Biology Program Coordinator to verify the student status before making any commitment. This does not prevent the student seeking other opportunities elsewhere at MSU (the Computational Biology Program, being cross-college, may have opportunities outside of Biological Sciences). Any administrative probation action would be taken on the part of that program and not Biological Sciences. The adjudication of the final grade for research hours will still rest with the BIO faculty member unless a Comp Bio faculty member has replaced them as instructor of record.
- Retaliation. This is in reference to MSU OP 03.03, which applies to all members of the MSU community.