# Graduate Bulletin
# Department of Biological Sciences
# Louisiana State University
# 2023-24

**Statement of Purpose**

A major goal of the faculty of the Department of Biological Sciences is to give you the best training possible for an independent career in research. That training begins with your personal commitment to excellence. Implicit in this commitment is your full acceptance of the responsibilities of a graduate student. Among these responsibilities is the need to familiarize yourself with the rules, regulations, and expectations of the Graduate School and the Department of Biological Sciences with respect to your individual degree program. To assist you with this task, this document was prepared by the Department's Graduate Admissions Committee.

The Graduate Admissions Committee is chaired by the Department's Associate Chair for Graduate Studies, who represents the Chairman of the Department of Biological Science in graduate matters. The Graduate Admissions Committee is composed of faculty members representing each division within the Department of Biological Sciences.

Table of Contents

## I. ADMISSIONS REQUIREMENTS AND CRITERIA:

For graduate admission to the Department of Biological Sciences, applicants must meet the following two requirements:

1) Admission to the Graduate School at LSU (see the LSU Graduate Bulletin).

2) Successful completion of the requirements of one of: a B.S., B.A. or M.S. in biology, biochemistry, chemistry or related fields. Three letters of recommendation are required, and a minimum GPA from the undergraduate program of 3.0 on a scale of 4.0 is expected.

Applicants are normally expected to have successfully completed the following minimum credit hours in these specified areas: Calculus (5), Organic Chemistry (6), Physics (6), General Biology (8), Advanced Biology or Chemistry (8), Genetics (3), and Biochemistry (4). Students applying for the Biochemistry degree also are expected to have completed a course in Physical Chemistry or Physical Biochemistry (3). **Applicants lacking one or two of these areas can fulfill them by successfully passing appropriate undergraduate courses at LSU during their first year of enrollment** as recommended by the student's Advisory Committee.

Additional criteria to be considered by the Admissions Committee will include (but may not be limited to):

1) additional higher degrees (M.S., M.D.) completed by the applicant,
2) papers published in peer-reviewed journals, especially first-authored work,
3) whether the applicant's research statement frames question-driven, modern research in the biological sciences
4) independent funding the applicant has secured.

## II. DEGREES:

The Department of Biological Sciences offers research-oriented Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in two areas: Biochemistry, and Biological Sciences. For students who wish to obtain a non-thesis degree, the College of Science administers a M.N.S. (Master of Natural Science) program; we consider the M.N.S. degree to be terminal and not appropriate for entry into a Ph.D. program.

## III. SELECTION OF THE MAJOR PROFESSOR:

The major professor must be a member or an adjunct member (see section VI-2) of the Department of Biological Sciences and a member of the University Graduate Faculty. Two different methods may be employed to facilitate the selection of a major professor. One is to correspond or interview with possible mentors during the application process. The second is to do short research rotations in different laboratories after entering the program.

*Pre-Selecting Mentors*

This path normally involves discussions with and acceptance by specific faculty because of an interest in their research programs. In this case, the student begins working with the mentor upon arrival. A rotation is not usually required, but exceptions may be made in Biochemistry.

*Rotations*

Rotations are designed to expose students to various areas of research and to help them identify an advisor. The Graduate Program Committee may recommend laboratory rotations for any applicant if it is deemed to be in the best interest of the prospective student.

Students performing laboratory rotations will participate in the research programs of two or three different laboratories for 6-8 week each. Assignments for rotations must be approved by the Associate Chair for Graduate Studies after preparation of a Rotation Agreement (Appendix 6). It is the responsibility of the student to consult with prospective mentors, with whom goals will be set and a schedule arranged. The Agreement will be a contract between the student and each of the faculty administering the research which will be performed. The signed agreement must be submitted to and will be maintained in the Graduate Program Office. Although students are not required to choose one of their rotation faculty for their major professor, that is the usual pattern. A student may perform as many as four rotations, but selection of a major professor is expected to be completed early in the second semester of residency.

*Changing Research Direction*

Occasionally students feel compelled to change their major professor or their research direction. If a student has been in the program for more than one year, such a change must be approved by the Associate Chair for Graduate Studies and, if the change takes place after the general examination, the Dean of the Graduate School. A letter from the student, endorsed by the majority of current and proposed advisory committee members, must be provided to the Associate Chair for Graduate Studies explaining the reasons behind the petition. A change in major professor becomes progressively more difficult as the student's research develops. Please consult the Graduate Bulletin for the discussion of Research Ethics & Intellectual Property relevant to graduate student research.

## IV. **SUPPORT:**

Financial support for graduate students is usually provided by Teaching Assistantships (TA), Curatorial Assistantships (CA), Research Assistantships (RA), or Fellowships. Students are not usually accepted into the program without an offer of support. TAs and CAs are awarded by the Department and the Department normally will support no more than three assistantships for any faculty member without substantial support for RAs in their lab. RAs are awarded by individual faculty members from grant support. The duties and responsibilities vary (see a generalized job description for graduate assistants, Appendix 1). Fellowship opportunities are available from the Department, the Graduate School, or competitive awards open for student application.

To assure funding, you must return "Support for Fall/Spring Semester" forms to the Graduate Office on time, usually about six weeks before the end of the semester. If a new source of funding arises (e.g., a research assistantship from a newly funded grant) any time after the Support Form has been submitted, notify the Associate Chair for Graduate Studies immediately. Release from the TA commitments will be granted by the Associate Chair for Graduate Studies only once departmental teaching needs are met and may not be finalized until teaching begins in the new semester. If multiple students request a switch from their teaching assistantship, priority will be based on consideration of the student's progress toward degree completion, past RA support, whether the major professor is a junior faculty member, and the timeliness of notifying the Associate Chair of the potential research assistantship.

For continued support, graduate students must:

A. Be a student in good standing with the Graduate School. Students on academic probation (e.g. if the cumulative GPA drops below 3.0 or a U grade for research) are not eligible for support.

B. Perform assistantship duties in a satisfactory manner based on student and faculty evaluations, and

C. Provide an annual progress report to the Graduate Program prior to the end of the fiscal year (June 30) endorsing continued support. This short report should detail progress toward your degree and evidence of professional advancement such as awards received, abstracts or manuscripts accepted. The report is to come from the student's advisory committee (see Section VI-2), acknowledging that they have met as a body and that the student is making satisfactory progress toward the degree. **It is your responsibility to schedule this meeting**, and to ensure that it takes place in a timely fashion.

**Failure to meet with the advisory committee or to demonstrate satisfactory performance in assistantship duties or progress in research will result in the loss of support.**

A student working toward a Ph.D. degree can be supported by State funds (TAships and CAships) up to five years and those working towards a M.S. degree, three years. Additional support must come from either RAships provided by the professor or fellowships secured by the student themselves.

## V. TEACHING REQUIREMENT

As a component of professional development, **all graduate students are required to teach in the undergraduate program at least one semester during their degree program.** To help prepare for this task, a one-credit seminar **BASC 7000** is offered every fall and **is required** of incoming students. Further, all non-native English speakers entering on any form of support must pass the English proficiency exam (including an oral interview) administered through the English Department during their first year in residency.

Students who are teaching must meet all requirements of the particular assignment. This includes arranging for the entire time commitment relating to teaching, necessary preparations and proctoring, **including proctoring for classes other than the primary course assignment**. Some scientific meetings may require brief absences during a semester. In such cases, it is the responsibility of the student to make arrangements for covering the course to which he/she is assigned and assuring this meets the approval of the instructor. A failure to meet teaching commitments is a serious offense and may result in extra assignments and/or loss of salary for the period missed.

## VI. COURSE LOADS AND CONTINUOUS REGISTRATION:

Graduate students holding assistantships must be full-time students (defined as nine or more hours in fall and spring and six or more in the summer). **We recommend that all students on assistantships take 12 hours in the fall and spring semesters and nine in the summer,** including the appropriate number of thesis or dissertation hours, to ensure full-time status. Students must be registered for a minimum of 1-3 credit hours during any semester in which they are taking the Master's final examination or the doctoral general examination. Doctoral candidates must maintain continuous registration for a minimum of three semester hours of credit each semester from the completion of the General Exam until the end of the semester in which they

graduate. Students may be exempted from this requirement if dissertation-related field work is at a remote location

Students with an assistantship are in residence for the purpose of fulfilling their degree requirements. They must devote essentially all of their energies to the assistantship and their graduate study under the supervision of a major professor and an advisory committee and are strongly discouraged from seeking employment off campus. Employment outside of the Department requires the prior written approval of the Director of Graduate Studies and the Graduate School. Persons employed full time elsewhere cannot be considered full-time students.

## VII. REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY:

The Ph.D. degree is conferred only for work of distinction in which the student displays decided powers of original scholarship, and only in recognition of marked ability and achievement. Nothing in the following summary of the minimum standards should be construed to imply that the degree will be granted merely in recognition of faithful performance of prescribed work. The basic requirements are twofold: (1) each student must demonstrate expert competency and superior scholastic skills in the biological sciences. This requirement is met by successfully completing appropriate coursework and by passing qualifying and general examinations. (2) Each student must prove his or her ability to complete a significant body of original research by preparing a dissertation that embodies creative scholarship and by passing a rigorous final examination. The dissertation must arguably add to the sum of existing scientific knowledge and give evidence of considerable technical and literary skill, as evidenced by having at least one paper from the thesis accepted for publication in a peer-reviewed journal. To guide students through this process, we require that the following milestones be met by all Ph.D. students (a timetable for these events is located in Appendix 2). Note that the program for the doctoral student must be completed within seven years from the time a student is first classified as a Ph.D. student (see the Graduate Bulletin for details).

**Selection of an Advisory Committee** - The student's advisory committee is chaired by the major professor and is responsible for evaluating the student's academic potential and achievements and for guiding the student's original research. The qualifying examination is administered by the advisory committee, initially composed of **at least three members of LSU's Graduate Faculty,** of which <u>two</u> must be members **of the Department of Biological Sciences**.

**Qualifying Examination** - Before the end of the first year in residency, a qualifying examination is required of all students. The purposes are twofold: (1) to determine if the student has sufficient background in the biological sciences and the intellectual capabilities deemed necessary to pursue the Ph.D. degree, and (2) to prepare the Doctoral Degree Audit (Appendix 3A). Notify Chimene Williams in the Graduate Studies Office when you will be taking your Qualifying Exam. You will need to fill out the Doctoral Degree Audit and Request for Qualifying Exam forms at least one week before the date of your exam. The qualifying examination is given as an oral examination administered by the student's advisory committee. The examination is evaluated on a pass/fail basis; failure is defined as more than one dissenting vote by the members of the advisory committee. If the student fails the examination, a retake is at the discretion of the advisory committee, but the examination may not be taken more than twice. If a retake is conducted, it is also evaluated on a pass/fail basis with failure defined as more than one dissenting vote.

For the **General Examination**, the advisory committee must conform to Graduate School regulations, which require that the advisory committee be composed of a minimum of three faculty plus an additional member (the Dean's Representative) appointed by the Graduate School. All committee members must be members of the Graduate Faculty. Of the three, at least two must be from the Department of Biological Sciences, one of whom must be a Full Member (generally an Associate or Full Professor) of the Graduate Faculty. Of the other two, one must also be a Full Member of the Graduate Faculty. If a minor is sought, one member must be from the minor department. Adjunct faculty may serve as major professors (if they co-Chair with a full member of the Department) and represent the Department on advisory committees, but no advisory committee may consist only of faculty adjunct to Biological Sciences. The composition of the advisory committee must be approved by the Chair of the Graduate Program Committee and the Graduate School.

The advisory committee is required to meet by the end of the first year of residency and at least once annually thereafter. The advisory committee also makes annual recommendations regarding continued support based on satisfactory progress in research. Ordinarily, the advisory committee remains unchanged from the General to the Final Examination membership.

**Doctoral Degree Audit and Ph.D. Candidacy** - The Doctoral Degree Audit (see Appendix 3A) details the coursework requirements for the Ph.D. degree. It must be approved by the advisory committee and the Chair of the Graduate Program Committee. In effect, it is a contract detailing specific coursework requirements tailored to the student's needs. The qualifying examination will provide guidance for the course selection in the Doctoral Degree Audit. The Doctoral Degree Audit must be completed and submitted to the Graduate Office no later than the beginning of the second year in residency. Thus, the selection of a major professor and an initial advisory committee, and completion of the qualifying examination and of a Doctoral Degree Audit constitute significant first-year milestones for Ph.D. students. Upon successful completion of these requirements, the Department of Biological Sciences considers a student to be a *Ph.D. Candidate*.

**Coursework** - LSU's Graduate Bulletin states that "a minimum of the equivalent of three years full-time study beyond the baccalaureate degree" is required for the Ph.D. degree. It is the responsibility of the advisory committee to individualize the Doctoral Degree Audit, and thus the total number and distribution of courses among formal lecture and research offerings, to best meet the needs of each student. We expect that variation among the different Doctoral Degree Audits will be the norm rather than the exception. Further, the Department of Biological Sciences requires that Ph.D. students take:

A) a minimum of 15 hours of coursework (excluding seminar, independent research, dissertation research and directed readings),

Biochemistry Ph.D. students are required to take (or transfer credit in) specific courses as follows to fulfill part of the requirement for 15 hours of coursework:

i. One course in proteins: Either BIOL 7284 OR 7285
ii. One course in nucleic acids biochemistry and molecular biology: BIOL 7280
iii. One course in lipids and membranes or carbohydrate biochemistry: BIOL 7288 or 7290

B) BASC 7000 (1 h) and six additional seminar hours distributed as two hours in BIOL 7921 and four hours in various topic-oriented seminars offered by the Department. BIOL 7921 provides a forum at which students present their research prospectus and provide an update on research progress. All faculty and students are invited to attend this course. Other seminar courses vary in content and style, and are designed to keep students abreast of recent developments, expose students to specialized topics, and give students experience in giving presentations.

Up to 12 hours of graduate credit may be transferred from graduate studies at other universities with the approval of the advisory committee.

**Research Prospectus** - By the end of the 2nd year, a formal presentation of the research prospectus must be given in an open forum to the faculty and students of the Department. This requirement is met by earning credit in BIOL 7921. A **research prospectus in written form** is also required, and is to be presented to the advisory committee **by the end of the 2nd year**. The format for the prospectus is at the discretion of the major professor, but we recommend that it be written in the style of a grant proposal appropriate to the student's research area..

**General Examination** - The general examination has the following requirements and features:

The General Examination should be taken within six months after completing formal coursework but no later than the end of the third year (36 months) of residency. **You must submit a Request for Doctoral General Examination form (**Appendix 3B) to the Graduate School (after it has been approved by the Chair of the Graduate Program Committee) **at least three weeks prior to the proposed date** of the examination. It is your responsibility to complete this form, and obtain a signature from your major professor, before submitting it to the Chair of the Graduate Program Committee.

The General Examination is the most rigorous test in the doctoral program and will consist of **both oral and written components**. The examination must be comprehensive enough to demonstrate expert competence over broad segments of the student's major field and a high degree of familiarity with current progress in the field.

The written component may be oriented toward problem-solving capabilities, with emphasis on the student's ability to reconcile current literature within the content of his/her coursework, as well as general biological principles. After completing the written portion, you should compile all questions and answers and give a copy to your advisory committee before the oral exam.

Success in the oral component requires a broad general knowledge of the biological sciences, and detailed understanding of your area of specialty including current literature. You must demonstrate considerable understanding of the process by which research is conducted. Questions related to your research proposal and accomplishments are likely, but should not constitute most of the exam. Questions also may follow up on answers given on the written component.

After completion of the General Examination, the members of the advisory committee will cast their final decision on a pass/fail/retake basis. For the student to pass the general examination there may not be more than one dissenting vote.

**The Dissertation** - The form of the dissertation must be in accordance with instructions in the Guidelines for Preparation of Theses and Dissertations, available from the Graduate School (see also the Departmental Policy on Preparation of Theses and Dissertations, Appendix 4). The advisory committee also acts as the examination committee of the dissertation and gives assurance that high standards are met by the Ph.D. dissertation. These standards include:

A) The work presented in the dissertation should attest to the ability of the candidate to be an independent investigator. Therefore, the candidate's dissertation should demonstrate an original idea, design an approach to test it and draw sound conclusions from data obtained.

B) The work described in the dissertation should reflect the scientific curiosity of the applicant and his/her ability to pursue promising leads in the investigation, as well as to develop and reconcile these leads to meaningful findings.

**C) A minimum of one paper** from the dissertation research must be published (or be accepted for publication) in a peer-reviewed scientific journal before the dissertation is deemed acceptable (see Appendix 5).

**Final Examination - Early in the semester in which a student intends to graduate, the Graduate School must be notified of the student's intention to complete degree requirements.** A schedule of important dates and deadlines is produced each semester by the Graduate School; a link is available on our Department's Graduate Studies FAQ site**.** At least three weeks prior to the proposed examination date, you must submit an application for the final examination to the Graduate School, after it has been approved by the Associate Chair of Graduate Studies. (Appendix 3B: Request for Final Examination for the Ph. D. Degree.) The Departmental Approval to Request a Final Examination for the Ph.D. (Appendix 5B) must be completed before this time. It is your responsibility to complete this form and obtain a signature from your major professor before submitting it to the Associate Chair of Graduate Studies. The application must specify dissertation title, and the time and place proposed for the examination. The examination committee, **including the Dean's representative**, must have copies of the dissertation **at least two weeks** prior to the final examination. Permission to hold the final examination will be granted by the Dean of the Graduate School only after all the foregoing conditions are satisfied (including publication of one paper) and one academic year has elapsed since the student completed the general examination. The Dean of the Graduate School will appoint the final examination committee. It will usually consist of the advisory committee to whom one or more additions may be made as representatives of the Dean or the Graduate Faculty. All final examinations include a presentation open to the public; it must be publicized according to the regulations of the Graduate School.

Upon passing the final examination, with no more than one member of the committee dissenting, and upon acceptance of the dissertation by the Graduate School, the candidate will be certified to the LSU Board of Supervisors by the Dean of the Graduate School as having fulfilled all requirements for the Ph.D.

## VIII. REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE:

The M.S. degree is awarded on the basis of coursework and research. An advisory committee must be selected and have met no later than the second semester in residency to help guide the student in research and suggest appropriate coursework. The advisory committee is chaired by the major professor and must consist of a minimum of three members of the Graduate Faculty, one of whom must be a Full Member of the Graduate Faculty (see section VI-2). Adjunct faculty may serve as major professor and represent the Department on advisory committees, but no advisory committee may consist only of faculty adjunct to Biological Sciences. The advisory committee must meet as a body at least one time each year in residency. A timetable for progress toward the M.S. degree is found in Appendix 2.

To meet the requirements of the Masters of Science degree, each student must:

1) Complete a minimum of 30 semester hours of graduate credit, including at least 24 hours of coursework (excluding independent research, directed readings and thesis research). Your program must include six hours of thesis research (BIOL 8000), no less than 12 hours in courses

numbered above 7000, and seminars as follows: BASC 7000 (1 h), BIOL 7921 (1 h) and two hours in various topic-oriented seminars offered by the Department (see section VI).

2) Complete a satisfactory thesis. The thesis requirement is to be satisfied with the research conducted by the student under the direction of the major professor. The thesis must demonstrate capacity for research, originality of thought, and facility in organizing materials. Final acceptance of the thesis rests with a special committee of three or more members who are nominated by the Chair of the Graduate Program Committee and appointed by the Dean of the Graduate School; normally this examining committee is identical to your advisory committee. The form of the thesis must be in accordance with instructions in the Guidelines for Preparation of Theses and Dissertations, available from the Graduate School (see Appendix 4). The thesis must be provided to the examining committee at least two weeks prior to the examination date.

3) Pass a final oral examination. Each candidate for a Master's degree will be required to pass a comprehensive oral final examination. Early in the semester in which a student intends to graduate, the Graduate School must be notified of the student's intention to complete degree requirements by completing an Application for Candidacy form (Appendix 3E). A schedule of important dates and deadlines is produced each semester by the Graduate School**. At least three weeks prior to the proposed date of this examination, you must submit a request** for appointment of the examining committee to the Graduate School after it has been approved by the Chair of the Graduate Program Committee. It is your responsibility to complete this form, and obtain a signature from your major professor, before submitting it to the Chair of the Graduate Program Committee (see Appendix 3F) Representatives of the Graduate Faculty may be added by the Dean. All final examinations for the M.S. degree must begin with a presentation open to any interested student or faculty member. The final examination is evaluated on a pass/fail basis; failure is defined as more than one dissenting vote by the members of the examining committee.

## IX. MINOR IN THE DEPARTMENT OF BIOLOGICAL SCIENCES:

Students in degree programs in other departments may minor in Biochemistry or Biological Sciences. For each degree, an appropriate faculty member from the Department of Biological Sciences must be on the advisory and examining committees. The student must take a minimum of 10 hours in appropriate coursework (as recommended by the faculty representative and approved by the Associate Chair for Graduate Studies) in biological sciences (as signified by the BIOL rubric on the transcript; the same course cannot be counted twice from credit in Biological Sciences and the home department). At least half of these hours must be at the 7000 level and transfer credit is not accepted.

## X. AWARDS:

LSU and the Department of Biological Sciences recognizes outstanding research and teaching by graduate students. For your information, we list some of the awards below:

1. LSU offers two campus-wide awards of interest:

A) Distinguished Dissertation Award in Science and Engineering. This award is given annually based on faculty nominations.

B) LSU Alumni Association Teaching Assistant Award. This award is given annually based on faculty nominations in recognition of excellence in classroom or laboratory instruction.

2. Department of Biological Sciences awards are for teaching and research excellence and include:

*Research*

a. Michael McDaniel Travel Award. Given to support travel to present research findings at national or international meetings.
b. Dr. Richard Bruch Distinguished Graduate Student Scholarship –Fund travel by PhD student who have passed their General Exam to present at major international or national meetings.
c. Dr. Thomas and Susan Shirly Superior Graduate Student Scholarship – To support graduate student travel to meetings, workshops, other labs or into the field.
d. T. Vinton Holmes Award – To support student research in ornithology.
e. Dr. Simon Chang Biochemistry Support Fund – To enhance the learning experience of outstanding students pursuing research in biochemistry.
f. Komma Memorial Outstanding Graduate Student Award**. G**iven annually to an outstanding international Ph. D. graduate student.

*Teaching*

a. Daisy B. and William J. Luke Award. Given annually to a teaching assistant in plant biology for outstanding instruction.
b. Simon Chang/Ezzat Younathan Award. Given annually to a teaching assistant in the biochemistry program for outstanding instruction.
c. William H. Gates Award for Excellence in Freshman Instruction – For outstanding instruction in freshman biology laboratories for majors.

*Superior Graduate Student Scholarships*

a. Mary Lou Applewhite and Ron and Mary Neal Scholarships – Fund a one-semester fellowship plus one month of summer salary.
b. Carrie Yoder Scholarship – one-semester enhancement for students who have completed four years toward their degree. Female students and those with a strong field component to their research are especially encouraged to apply.

Students are also encouraged to apply for awards to help support their research activities. Funding opportunities are available on campus (*e.g.*, Graduate School support is currently available for travel) and off campus from federal agencies, professional societies (*e.g.*, Sigma Xi, American Women in Science) and private foundations. Please discuss opportunities best suited to your needs with your major professor or other faculty members familiar with your field.

## X. APPEALS:

Some of the requirements listed above are those of the Graduate School and some are imposed by the Department of Biological Sciences. Under extreme circumstances, the Dean of the Graduate School (for Graduate School regulations) or the Graduate Program Committee (for Departmental regulations) will consider petitions or appeals to waive requirements. These appeals are not taken lightly nor will they always be approved, but due consideration for each student will always be made. If you feel that an appeal is necessary, it will prove helpful to discuss the situation with the Associate Chair for Graduate Studies regarding the circumstances and procedures before initiating the appeal.

## Appendix 1 Graduate Assistantship Job Description

### GRADUATE ASSISTANT JOB DESCRIPTION

The duties of a Graduate Assistant (GA) in the Department of Biological Sciences require approximately twenty (20) hours per week during the Fall and Spring semesters. In the Department of Biological Sciences a GA may be a Teaching Assistant (TA), Research Assistant (RA), Curatorial Assistant (CA), or (very rarely) may perform a combination of duties. The type of appointment will determine the precise duties, but normally duties will include one or more of the following:

1. For students on CA and RA; perform assigned curatorial or research duties.

2. For students on TA; teach one or more undergraduate or graduate laboratory sections. The following is a generalized description of TA duties; specific duties will vary with the assignment and will be determined by the instructor in charge. Duties will include in-class and out-of-class activities as follows:
    a. Having or acquiring knowledge of the laboratory experiments;
    b. Giving short lectures on procedures and principles;
    c. Maintaining safe and proper laboratory conditions;
    d. Preparing and grading quizzes, grading reports and evaluating student performance in laboratory courses;
    e. Meeting students outside of class during regularly scheduled office hours (minimum of 2 hours/week) for help sessions;
    f. Preparing solutions and materials and setting up experiments and displays in advanced laboratory courses;
    g. Setting up or writing laboratory tests;
    h. Maintaining a record of grades and assisting in or assigning grades
    i. Assisting in the design and testing of experiments and activities for teaching labs;
    j. Assisting in the maintenance of laboratory instruments.
    k. Proctoring lecture examinations Each teaching assistant will be assigned to several faculty members for proctoring duties. Faculty or staff members will contact TAs in advance regarding the time and location of exams. Please be on time and be prepared to follow the professor's instructions. This part of the teaching duty is essential to our lecture courses. Please take it seriously.
    l. Attendance at meetings related to teaching, proctoring, or grading assignments. If such meetings are held, **attendance is mandatory; unexcused absences are unacceptable**. The faculty of the Department of Biological Sciences recognizes the importance of both excellent teaching and excellent research and are committed to ensuring that all demands made upon GAs are reasonable and equitable. If there is a problem with performing the aforementioned duties, it will be resolved by or with the approval of the Graduate Program Committee and the student=s advisory committee as well as other involved parties. TAs are usually expected to teach at least one summer session. GAs are fully expected to perform well in their assignments (including out-of-class assignments such as proctoring), and to show satisfactory progress in their research project. Consistent failure to do either of these will result in reduction or loss of the assistantship.

I have read the above stated job description and will fulfill the assigned duties.

_____

Signature Date

## Appendix 2. Timetable for M.S. and Ph.D. Students

### Ph.D. SCHEDULE

| Semester (Year) | Deadline |
|---|---|
| Fall (1) | Begin work with major professor or perform laboratory rotations |
| Spring (1) | Select major professor, if performing rotations<br>Select advisory committee<br>Take qualifying examination |
| Summer (1) | Complete and submit Doctoral Degree Audit |
| Fall or Spring (2) | Take BIOL 7921- present research prospectus<br>Complete written research prospectus |
| Spring (3) | Complete coursework<br>Take General Examination |
| Year 4 | Present this work at meeting.<br>Get draft of first paper to committee members for comments |
| Year 5 | Submit first authored paper from thesis<br>Meet with committee to OK plans to defend |
| Year 6 | Complete Final Exam |

### M.S. SCHEDULE

| | |
|---|---|
| Fall (1) | Meet with major professor or perform rotations. Discuss potential research projects with faculty |
| Spring (1) | Select major professor, if performing rotations<br>Begin to plan and execute research project<br>Select and meet with advisory committee |
| Summer (2) | Complete Final Examination |

## Appendix 3. Forms

### From the Department of Biological Sciences

**This form is available in 107 Life Sciences Building and can be found on our webpage under Graduate Student Resources & FAQ**

Request of Doctoral Degree Audit/Qualifying Exam

### From the Graduate School

**These forms can be filled out on-line and downloaded from the LSU Graduate School website: www.lsu.edu/graduateschool/current-students/forms-policies.php**

Request for Transfer Work to the Master's Degree
Request for Master's Examination
Master's Application for Degree
Request for Doctoral General Exam and Doctoral Degree Audit
Request for Change in Doctoral Degree Audit
Request for Doctoral Final Exam
Doctoral Application for Degree
Declaration of Co-Authorship

Please run all forms through the Graduate Office in LSB 107 rather than directly to the Graduate School
Students should never submit forms directly to the Graduate School

### From the Department

## Departmental Approval to Request a Final Examination for the Ph.D.

Students must be able to check one of the following boxes and provide requested evidence before they can obtain a signature from the Director of Graduate Studies to schedule the Final Examination for the Ph.D.

From Appendix 5 of the Graduate Bulletin:

"...we require that all Ph.D. students publish (or have accepted for publication), as a first author, a minimum of one paper reporting the results of some aspects of their dissertation research in a peer-reviewed journal before the dissertation is accepted."

A student who is on track for this requirement should meet one of the following criteria (please check one):

☐ A first-authored paper from the dissertation has been published (affix reprint)

☐ A first-authored paper from the dissertation has been accepted for publication (affix letter of acceptance)

☐ A first-authored paper from the dissertation is in revision for publication (affix all correspondence with the journal, including the most recent rounds of reviews)

☐ A first-authored paper from the dissertation has been submitted for publication (affix acknowledgement from the journal)

_____ _____

(Signature of Student) (Date) (Signature of Major Professor) (Date)

# Request for ETD Username and Password
# Graduate Student Services LSU Graduate School

***Complete and print this form to pdf; attach to email and send to gradetd@lsu.edu or deliver paper copy to Graduate Student Services, 114 West David Boyd Hall***

Name: LSU ID#:

Department:

Degree Title:

LSU E-Mail Address: Phone Number:

Graduation Date:

In order to receive a Username and Password to the ETD website, you must have successfully defended your thesis or dissertation.

Have you defended? Yes No

If yes, what was the date of your defense?

Would you like to be considered for Degree Only* registration? Yes No

*Note: In order to be eligible for Degree Only registration, you must have successfully defended in the semester prior to the one in which you plan to graduate. Your thesis or dissertation must be submitted and approved by the Graduate School by the last day to add of your graduating semester.

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*For Graduate School use only*

Username: _____

Password: _____

Issue Date: _____

Sent/Given by: _____

10062014

**Rotation Agreement**

**Rotation 1**: Faculty: _____

Dates: Beginning _____ Ending _____

Goals: _____

_____

_____

Signatures: _____ _____ _____
Student Faculty Date

**Rotation 2**: Faculty: _____

Dates: Beginning _____ Ending _____

Goals: _____

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Signatures: _____ _____ _____
Student Faculty Date

**Rotation 3**: Faculty: _____

Dates: Beginning _____ Ending _____

Goals: _____

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Signatures: _____ _____ _____
Student Faculty Date

## Appendix 4. Departmental Policy on Preparation of Theses and Dissertations

1. The Department of Biological Sciences cannot provide staff to type theses, nor will it pay for paper or copying of the final version of the thesis or dissertation.

2. Departmental computers and printers may be used to prepare theses or dissertations, provided that such activity does not interfere with normal workday use by office staff; such equipment is multi-functional and this role must be appreciated and respected.

3. Special needs (e.g., photographic paper, mounting boards, drafting services, or computer time that results in direct charges) must be discussed and approved by the Chair of the Graduate Program Committee ahead of time if more than $50 in Departmental funds are required. Technical staff may assist with slide and presentation production and photographic needs, etc., if such activity does not interfere with everyday assignments.

## Appendix 5. Departmental Policy on Publications

The Ph.D. degree is conferred on the basis of original scholarship. The most compelling standard by which original research can be judged is the peer-review process associated with publication in reputable scientific journals. Unpublished investigations are of little or no benefit to science or to society. Because publication-quality research is a major goal of the faculty, **we require that all Ph.D. students publish (or have had accepted for publication), as first author, a minimum of one paper reporting the results of some aspect of their dissertation research in a peer-reviewed journal before the dissertation is accepted.** A single (dual first-authored) publication cannot fulfill this requirement for more than one student.

Career advancement in scientific disciplines is highly correlated with the quality and quantity of publications produced, and we therefore strongly encourage students (M.S. and Ph.D.) to publish meaningful papers early and often in their career. The publication process requires input and approval from the major professor for all research conducted under his/her supervision, and the Department should be credited on all publications associated with the dissertation. Your advisory committee must also be given the opportunity to comment on drafts of the manuscript before it is submitted for publication. Also note that conflicts and hard feelings over paper authorship arise most often when work initiated during the thesis is not written into final form and submitted before degree completion.

According to regulations adopted by the Graduate Council, articles from journals may constitute part of the dissertation, provided that the student is the first author of all included articles and provided that all other Graduate School regulations are satisfied (consult the Graduate School for particulars). Note that some published articles cannot be included in the dissertation without permission from the publisher; it is the responsibility of the student to obtain this permission in writing.