Statement of Purpose

A major goal of the faculty of this Department is to give you the best possible training for an independent career in the biological sciences. 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 (requirements) 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 Program Committee.

The Graduate Program 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 Program Committee is composed of faculty members representing each degree program and is charged with administering the Department=s graduate program.
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I. **ENTRANCE REQUIREMENTS:**

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 the following degrees: B.S., B.A. or M.S. in biology, biochemistry, chemistry or related fields. Candidates holding other degrees (e.g., D.V.M. or M.D.) are encouraged to apply. 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. Prospective students are required to take the GRE general test, and a minimum of 1100 (verbal and quantitative combined) 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.**

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 Basic Sciences administers a M.N.S. (Master of Natural Science) program; we consider this degree to be Aterminal@ and not appropriate for entry into a Ph.D. program. Department faculty also participate in interdepartmental programs leading to graduate concentrations in (1) Systematics and Evolutionary Biology, (2) Genetics, (3) Plant Physiology and (4) Toxicology.

III. **SELECTION OF THE MAJOR PROFESSOR:**

The selection of a **major professor** (the research advisor or mentor) is an important milestone for graduate students and faculty. 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 are traditionally employed to facilitate this process. One method is to correspond or interview with a possible mentor during the application process. The second method 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 programs. In this case, the student begins working with the mentor immediately upon arrival. In most cases where a mentor is pre-selected a rotation is not required but exceptions may be made in Biochemistry.

Rotations

This option generally applies to students who have not identified a mentor. Such rotations are designed to expose students to various areas of research and to help them identify a mentor. 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 periods. 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. While it is relatively easy to change the major professor early in an individual's career as a graduate student, a change in major professor becomes progressively more difficult to accomplish 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), Research Assistantships (RA) or Fellowships. Normally, students are not accepted into the program without an offer of support, partly because we believe that these activities significantly contribute to professional development. TAs are awarded by the Department, and RAs by individual faculty members from grant support, and the duties and responsibilities vary (a generalized job description for graduate assistants is found in Appendix 1). Several fellowship opportunities are available from the Department, the Graduate School or from competitive awards open for student application.

A new addition to the Graduate School offerings are the Economic Development Assistantship (EDA) which are intended to support students working on projects related to the economic development of the State of Louisiana. These four year assistantships currently require two semesters of teaching, with the remainder of that time being dedicated to research.

For continued support, graduate students must meet the following guidelines:

A. Be a student in good standing with the Graduate School. Students on academic probation are not eligible for support.

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

C. Provide a letter to the Graduate Program Committee prior to the end of the fiscal year (June 30) endorsing continued support. This letter 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.** You will also be asked to annually provide a short report detailing progress toward your degree and evidence of professional advancement such as awards received, abstracts or manuscripts accepted, etc.

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

The maximum time of support for students working toward a Ph.D. degree is six years, and for those earning a M.S. degree, three years. Support beyond the normal time depends on (1) availability of funds and (2) demonstration by the student of satisfactory degree progress and evidence of productivity, including published articles and scientific meeting abstracts.
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, BASC 7000 (a one-credit seminar) is offered every fall, and is required of all 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. All entering students who TA during their first year of residency are required to TA in their first summer (petitions to fulfill this obligation in an alternate semester will, however, be considered by the Chair of the Graduate Program Committee).

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. Some research and/or scientific presentations 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. (Full-time status is 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 each semester in the fall and spring 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 or doctoral general examination. Doctoral candidates must maintain continuous registration for a minimum of three semester hours of credit each regular semester (excluding summers) from the completion of the general examination to the end of the semester in which they graduate. The Dean of the Graduate School may exempt students from this requirement if dissertation-related field work is at a remote location (see the Graduate Bulletin for details).

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. Persons employed full time 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 passing qualifying and general examinations, and by successfully completing appropriate coursework. (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. 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). Please 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).

1) **Qualifying Examination** - No later than the second semester 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 assist in the preparation of the Program of Study (see section VI-3). 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. The results must be provided to the Graduate Program Committee in a memo from the major professor. 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. Students who do not qualify for the Ph.D. degree may be encouraged to pursue the M.S. (and his/her case for Ph.D. qualification can be reconsidered after the completion of this program) or the M.N.S. (terminal) degree.

2) **Selection of an Advisory Committee** - The student's advisory committee is chaired by the major professor and is charged with the responsibility of evaluating the student's academic potential and achievements, and in guiding the student's original research. Thus, the selection of this committee must be made with the understanding that these individuals will have a significant impact on the final disposition of the student's program. The qualifying examination is administered by the advisory committee which is initially composed of a minimum of three members of LSU's Graduate Faculty. For the general examination (see section
VI-6), the advisory committee must strictly conform to Graduate School regulations, and it is therefore imperative that these regulations be understood and considered during the initial selection process. For the general examination, Graduate School regulations require that the advisory committee be composed of a minimum of four faculty plus an additional member appointed by the Graduate School. All committee members must be members of the Graduate Faculty. Of the four, a minimum of 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 and represent the Department on advisory committees, but no advisory committee may consist only of faculty adjunct to Biological Sciences. (Adjunct faculty are non-voting members of the Department of Biological Sciences. A list of adjuncts in Biological Sciences can be found in the LSU General Catalog or on the departmental website). 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 each year 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 (see section VI-8); membership changes must be approved by the major professor, the Chair of the Graduate Program Committee and the Dean of the Graduate School.

3) Program of Study and Ph.D. Candidacy - The Program of Study (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 before submission to the Graduate School. In effect, it is a contract between the student and the University detailing specific coursework requirements tailored to that individual’s needs. The qualifying examination will provide guidance for the course selection in the Program of Study. The Program of Study must be submitted to the Graduate School 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 Program of Study constitute significant first-year milestones for Ph.D. students. Therefore, upon successful completion of these requirements, the Department of Biological Sciences considers a student to be a Ph.D. Candidate.

4) 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 Program of Study, 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 Programs of Study 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: Choose either BIOL 7284 OR 7285

ii. One course in nucleic acids biochemistry and molecular biology: Choose either BIOL 7163, 7164, or 7280

iii. One course in lipids and membranes or carbohydrate biochemistry: Choose either BIOL 7288 or 7290

B) BASC 7000 (1 h) and

C) 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 by which students present their research prospectus and provide an update on research progress. All faculty and students are invited to attend this course, typically offered in the spring semester. Other seminar courses vary in content and style, and are designed to keep students abreast of recent developments in the biological sciences, expose students to specialized topics and give students experience in giving presentations.

5) **Research Prospectus** - By the end of the 2\textsuperscript{nd} 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 2\textsuperscript{nd} year. The format for the prospectus is at the discretion of the major professor, but we recommend that it be written in grant proposal style appropriate to the student=s research area. The proposal should be the focus of discussion for an advisory committee meeting. The proposal is not presented in conjunction with the general examination; however, its content is to be regarded as Afair game@ for questions at the examination.
6) **General Examination** - The general examination has the following requirements and features:

A. 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.**

B. The general examination is ordinarily 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.

1) 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.

2) 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, and questions related to your research proposal and accomplishments are likely. Questions also may follow up on answers given on the written component.

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

D. If the student fails the general examination, the advisory committee must recommend one of the following three courses of action:

1. The student is asked to repeat the entire examination, or any part of it, at a date set by the committee.
2. The student is recommended to continue graduate work toward the
M.S. degree (and his/her case be reconsidered after the completion of this program) or the M.N.S. degree.

3. The student is dropped altogether from the graduate program.

7) The Dissertation - The form of the dissertation must be in accordance with instructions in the AGuidelines 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 enthusiastically 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, Departmental Policy on Publications).

8) 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. 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.) 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, 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. Examinations cannot be scheduled between semesters. Permission to hold the final examination will be granted by the Dean of the Graduate School only after all the foregoing conditions are satisfied and one academic year has elapsed since the student completed the general examination (see the Graduate Bulletin for details).
The Dean of the Graduate School will appoint the final examination committee. In most cases it will consist of the advisory committee, or a similarly constituted group, 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. degree.

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 (see section VI-2). 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.

In order 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). Of these 30 hours of graduate credit, 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-4 for details regarding seminars).

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, and 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 AGuidelines 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 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: Request for Final Examination for M. S. Degree.) 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:

It is possible for students in degree programs in other departments to 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 and 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. 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. Our graduate students have won this most prestigious award for excellence in graduate research on several occasions.
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. Our graduate students also have won this prestigious award.

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

Research
a) C. W. Edgerton Award. Given annually to a plant biology graduate student for significant achievements in research.
b) Robert Scott and Louise Pierce Allen Scholarship. Given annually to a biochemistry graduate student for significant achievements in research.
c) Michael McDaniel Travel Award. Given twice annually for outstanding research in support of travel to present research findings at national or international meetings.
d) T. Vinton Holmes Award. Given annually to support graduate student research in the field of ornithology.
e) Bernard Lowy Award. An award for research in diverse aspects of tropical botany in Latin America.

Teaching
a) William H. Gates Award. Given annually to a teaching assistant in the zoology program for outstanding instruction in freshman laboratories.
b) Daisy B. and William J. Luke Award. Given annually to a teaching assistant in the plant biology program for outstanding instruction.
c) Freshman Biology Award. Given annually to a teaching assistant in the biological sciences for outstanding instruction in freshman biology laboratories.
d) Simon Chang/Ezzat Younathan Award. Given annually to a teaching assistant in the biochemistry program for outstanding instruction

Students are also encouraged to apply for research and travel 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 a variety of sources including federal agencies (e.g., National Science Foundation=s Dissertation Improvement Grants), professional societies (e.g., Sigma Xi, American Women in Science) and even private foundations. Please discuss opportunities best suited to your needs with your major professor or other faculty members familiar with your field of study.
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 Department of Biological Sciences
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 graduate 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. Although this often seems like a minor part of the teaching duties it is essential to our lecture courses. Please take this duty 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 ______________

Please Print Name ___________________________
### Appendix 2. Timetable for M.S. and Ph.D. Students

**Ph.D. SCHEDULE**

<table>
<thead>
<tr>
<th>Semester (Year)</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall (1)</td>
<td>Meet with major professor or perform laboratory rotations&lt;br&gt;Discuss potential research projects with faculty</td>
</tr>
<tr>
<td>Spring (1)</td>
<td>Select major professor, if performing rotations&lt;br&gt;Begin to plan research project&lt;br&gt;Select advisory committee&lt;br&gt;Take qualifying examination</td>
</tr>
<tr>
<td>Summer (1)</td>
<td>Complete Program of Study and submit it to the Graduate School&lt;br&gt;Begin research project</td>
</tr>
<tr>
<td>Fall or Spring (2)</td>
<td>Take BIOL 7921- present research prospectus&lt;br&gt;Complete written research prospectus&lt;br&gt;Discuss research prospectus with advisory committee</td>
</tr>
<tr>
<td>Spring (3)</td>
<td>Complete coursework&lt;br&gt;Continue research progress; meet with advisory committee&lt;br&gt;Take General Examination</td>
</tr>
<tr>
<td>Between Spring (3)</td>
<td>Continue research progress and prepare manuscript for publication</td>
</tr>
<tr>
<td>and Fall (4)</td>
<td></td>
</tr>
<tr>
<td>Between summer</td>
<td>Final examination should be conducted</td>
</tr>
<tr>
<td>(4 and 5)</td>
<td></td>
</tr>
</tbody>
</table>

**M.S. SCHEDULE**

<table>
<thead>
<tr>
<th>Semester (Year)</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall (1)</td>
<td>Meet with major professor or perform laboratory rotations. Discuss potential research projects with faculty</td>
</tr>
<tr>
<td>Spring (1)</td>
<td>Select major professor, if performing rotations&lt;br&gt;Begin to plan research project&lt;br&gt;Select and meet with advisory committee</td>
</tr>
<tr>
<td>Summer (1)</td>
<td>Begin research project</td>
</tr>
<tr>
<td>Summer (2)</td>
<td>Final examination should be conducted</td>
</tr>
</tbody>
</table>
Appendix 3. Required Forms for Graduate School

These forms may be downloaded from the LSU Graduate School website. Simply select Graduate Records and then Forms.

A. Program of Study
B. Request for General Examination and Final Examination for the Ph.D. Degree
C. Doctoral Application for Degree
D. Request for Change in Program of Study for Doctoral Degree
E. Application for Candidacy for M.S. Degree
F. Request for Final Examination for M.S. Degree
A. Program of Study
DOCTORAL PROGRAM OF STUDY GUIDELINES

The Program of Study is an agreement between the student and his/her department, and outlines the student’s individualized degree requirements as determined by the student’s major professor and advisory committee. The Program of Study form must be submitted by the student’s advisory committee through the Department Chair for final approval by the Graduate Dean. These forms are available on the web and from the Office of Graduate Records. Below are guidelines for completing the forms and avoiding common mistakes. Errors cause the forms to be returned and delay approval by the Graduate School. Any questions may be directed to the Office of Graduate Records at 578-3181.

In completing these forms, pay attention to the following:

**Major Fields**—must be as listed in the Graduate Bulletin (i.e., no sub-fields or specialties should be listed).

**Minor Fields**—must be in a curriculum offering a graduate degree; requires a committee member from the minor department and approval of the minor department chair. Internal minors need not be listed and are monitored by the department.

**Committee Members**—MUST be members of the graduate faculty. The General Catalog and the Departmental Graduate Advisor are the best sources for information on committee composition and graduate faculty status. Additional members can be added at the time of the General Exam. If you are including a member of the Southern University graduate faculty, please indicate this with (SU) after the person’s typed name.

**Signatures**—all signatures must be original. No one else can sign for a committee member.

**Course Work**—Programs of Study should have the required number of hours listed for the departmental requirements but do not need to list excess hours taken. The department has the right to determine the acceptability of courses with respect to the age of the courses and applicability to current degree requirements.

**No Undergraduate** courses should be listed. This includes departmental prerequisites and required English and/or foreign language requirements.

**Courses From Another Institution**—must be listed as they appear on the official transcript.

- official transcripts must be on file from all institutions the student attended and work must have been evaluated as graduate level (as indicated on the “Credentials Analysis” sent to the department from Graduate Admissions).
- course work must have a grade of A, B, P or S or the officially verified equivalent.
- departments should determine that course work applied from foreign institutions is comparable to graduate courses at LSU in terms of semester hours, quality of instruction and grading.
- quarter hours should be converted to semester hours at the rate of 2/3.

**Repetition of Courses**—is based on the maximum number of hours specified in the General Catalog.

**Departmental Requirements**—should be checked prior to submission to the Office of Graduate Records.

**Doctoral Residence Requirement**—the Program of Study must be on file in Graduate Records in order for the student to begin satisfying the doctoral residence requirement (refer to the Graduate School calendar for semester deadlines).
The Graduate School - Louisiana State University
PROGRAM OF STUDY FOR THE DOCTORAL DEGREE

Name ___________________________________________ LSUID# _____________________________

Specify degree type: PhD [ ] DMA [ ]

Major Field ___________________________________ Minor Field ________________________
(if applicable)

Degrees held (University and date of each) _______________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

Advisory Committee (Minimum of three required)

<table>
<thead>
<tr>
<th>Signatures</th>
<th>Typed Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Professor</td>
<td></td>
</tr>
<tr>
<td>Minor Professor (if applicable)</td>
<td></td>
</tr>
</tbody>
</table>

COURSES COMPLETED AND APPLICABLE AS GRADUATE CREDIT

List Subject, Course Number, and Hours of Credit. NOTE: Courses in which D, F, I, AU or U grades are earned should not be listed. (Example CHEM 4492 (3), 4452 (2), etc.)

MAJOR COURSES AT LSU: _______________________________________________________________

_________________________________________________________________________________
_________________________________________________________________________________

Total major credit hours at LSU ________

If student has completed graduate work at another institution that is applicable toward the major at LSU, list those courses here ___________________________________________________________________

_________________________________________________________________________________

Total major credit hours at (List University) (Total credit hours) GRAND TOTAL COMPLETED IN MAJOR ______

MINOR COURSES AT LSU ________________________________________________________________

_________________________________________________________________________________
_________________________________________________________________________________

Total minor credit hours at LSU ________

Minor courses completed at another institution ___________________________________________________________________

_________________________________________________________________________________

Total minor credit hours at (List University) (Total credit hours) GRAND TOTAL COMPLETED IN MINOR ______

OTHER COURSES AT LSU ________________________________________________________________

_________________________________________________________________________________
_________________________________________________________________________________

Total credit hours at LSU ________

Other courses completed at another institution ___________________________________________________________________

_________________________________________________________________________________

Total other credit hours at (List University) (Total credit hours) GRAND TOTAL COMPLETED IN OTHER ______

(Please submit 2 typed originals to the Graduate School)
PROBABLE FURTHER COURSEWORK

List Subject, Course Number, and Hours of Credit. The Graduate Council has strongly recommended that at least 9 hours of dissertation research be included. SAMPLE TO BE USED IN LISTING PROBABLE FURTHER COURSEWORK: CHEM 7261 (4), CHEM 7800 (1), CHEM 9000 (9), etc.

MAJOR COURSES


TOTAL MAJOR CREDIT HOURS TO BE TAKEN

The Graduate Council has strongly recommended that minor requirements include at least one 7000-level course. In some cases, good academic planning and judgment may lead to the requirement of 4000-level courses only. A brief memorandum of justification should accompany this form whenever the minor requirements do not include a 7000-level course.

MINOR COURSES


TOTAL MINOR CREDIT HOURS TO BE TAKEN

OTHER COURSES


TOTAL OTHER CREDIT HOURS TO BE TAKEN

(Signature of Student) Date

(Signature of Major Department Chair) Date

(Signature of Minor Department Chair) Date

APPROVED:

(Date received in the Graduate School) (Signature of Graduate Dean) Date

One full academic year of continuous residence (two consecutive semesters: fall and spring or spring and fall) as a full-time graduate student must be earned at LSU after the "Program of Study" is received by the Graduate School. The Program of Study must be submitted by the deadline date stated in the Graduate School Calendar in order for that semester to apply.

revised 3/07/07
B. Request of General Examination and Final Examination for the Ph.D. Degree
LOUISIANA STATE UNIVERSITY
GRADUATE SCHOOL

REQUEST FOR DOCTORAL GENERAL OR FINAL EXAMINATION
(To be submitted to Graduate School 3 weeks prior to date of examination
and by current semester deadline for graduates)

Date ______________________

The Department/School of ________________________________ requests that the
examination of ________________________________, ________________ (LSUID#)
for the ____________ degree be scheduled on ______________ (day of week), ______________ (date),
at _______ a.m./p.m. in room ____________________, __________________________ Building.

If General Examination, state the date of submission of Program of Study: __________

If Final Examination, state the date of the General Examination:

Has this examination been scheduled previously? [ ] Yes [ ] No

MAJOR: ___________________________________________  MINOR: __________________________

SUGGESTED COMMITTEE
(typed names)

NOTE: Doctoral committees must include at least two full members of the graduate faculty, one from the major
department. If this is a final exam, include the Dean’s Representative (DR) from the General Exam in
scheduling the above date and time. If you are including a member of the Southern University graduate
faculty, indicate this with (SU) after the name.

_____________________________ Chair

_____________________________ Minor Professor

If General Examination, state area of research (be as specific as possible): ______________________

If Final Examination, state title of dissertation: ____________________________________________

_____________________________ Committee Chair (to be signed)

Chair or Head of Department (to be signed)

APPROVED:

_____________________________ Dean, Graduate School

(Please submit 2 typed originals to Graduate School and one copy to each committee member.)

(revised 3/12/07)
C. Doctoral Application for Degree
APPLICATION FOR DEGREE

LSUID#: ___________________________        GRADUATION DATE: ___________________________

DIPLOMA INFORMATION: (Type or print the name you want to appear on your diploma using upper/lower case letters.)

(First Name) ___________________________ (Middle Name) ___________________________ (Last Name) ___________________________

(Hometown) ___________________________ (Hometown State) ___________________________ (Louisiana Parish) ___________________________ (Country) ___________________________

By signing below, I acknowledge that I understand that the above typed or printed name will appear on my diploma.

Signed: ___________________________ Date: ___________________________

(Day Phone) ___________________________ (Evening Phone) ___________________________ (E-Mail Address) ___________________________

DEGREE INFORMATION:

(Degree Title) ___________________________ Graduate School (Granted by College of) ___________________________

(Major) ___________________________ (Minor) ___________________________

DIPLOMA DISTRIBUTION CEREMONY:

You must indicate if you will attend or not attend the diploma distribution ceremony. Please check the one that applies to you.

☐ I will be attending the diploma distribution ceremony.

☐ I will not be attending the diploma ceremony and will pick up by diploma in room 112 Thomas Boyd Hall on the Monday following commencement.

☐ I will not be attending the diploma ceremony and would like my diploma mailed to the address listed below. (Diplomas will be mailed out approximately two weeks after commencement.)
The Graduate School-Louisiana State University
DOCTORAL APPLICATION FOR DEGREE

PLEASE TYPE

Student’s Name ___________________________ LSUID#

(Home Phone) ___________ (Work Phone) ___________ (E-Mail) ___________

Date of Graduation

Major Professor’s Name

Major Professor’s Official LSU Title

Major Professor’s Approval of LSU Title (signature)

Co-Chair’s Name (if not applicable - leave blank)

Co-Chair’s Official LSU Title (if not applicable - leave blank)

Co-Chair’s Approval of LSU Title (signature if applicable)

Title of Dissertation

(Revised 3/7/07)
D. Request for Change in Program of Study for Doctoral Degree
THE GRADUATE SCHOOL - LOUISIANA STATE UNIVERSITY

REQUEST FOR CHANGE IN PROGRAM OF STUDY
FOR DOCTORAL DEGREE

Name ___________________________ LSUID# ___________________________

Major Field ___________________________ Minor Field* ___________________________

ADD:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course #</th>
<th>Hrs. Credit</th>
<th>Reason for addition</th>
</tr>
</thead>
</table>

DELETE:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course #</th>
<th>Hrs. Credit</th>
<th>Reason for deletion</th>
</tr>
</thead>
</table>

Signature of Major Professor ___________________________ Date __________

Signature of Department Chair ___________________________ Date __________

* Please indicate changes in minor course work with an asterisk. If there is a change in the minor field requirements, the following signatures are required:

Signature of Minor Professor ___________________________ Date __________

Signature of Minor Department Chair ______________________ Date __________

APPROVED:

Signature of Graduate Dean ___________________________ Date __________

(Please submit 2 original copies to the Graduate School)

(revised 5/30/07)
E. Application for Candidacy for M. S. Degree
APPLICATION FOR DEGREE

LSUID#: ____________________ GRADUATION DATE: ________________

**Diploma Information:** (Type or print the name you want to appear on your diploma using upper/lower case letters.)

[First Name] ____________________ [Middle Name] ____________________ [Last Name] ____________________


By signing below, I acknowledge that I understand that the above typed or printed name will appear on my diploma.

Signed: ____________________ Date: ____________________

[Day Phone] ____________________ [Evening Phone] ____________________ [E-Mail Address] ____________________

**Degree Information:**

(Degree Title) ____________________ Graduate School (Granted by College of) ____________________

(Major) ____________________ (Minor) ____________________

**Diploma Distribution Ceremony:**

You **must** indicate if you will attend or not attend the diploma distribution ceremony. Please check the one that applies to you.

☐ I will be attending the diploma distribution ceremony.

☐ I will **not** be attending the diploma ceremony and will pick up by diploma in room 112 Thomas Boyd Hall on the Monday following commencement.

☐ I will **not** be attending the diploma ceremony and would like my diploma mailed to the address listed below. (Diplomas will be mailed out approximately two weeks after commencement.)
THE GRADUATE SCHOOL – LOUISIANA STATE UNIVERSITY
Master’s Application for Degree
(Please submit 1 typed original to the Graduate School)

Name ___________________________________________ LUID# ________________________________

Major Field ___________________________________ Minor Field ________________________________

Degrees held (University and date of each) __________________________________________________

I hereby apply for candidacy for the degree of Master of _________________________________ (Ex: Arts, Science, Science in C.E.)

for the semester/term of __________________________ (semester/year)

List all LSU graduate courses and hours required toward this degree. (Example: CHEM 4492 (3), CHEM 8000 (6), etc.)

1. Major Courses Completed: ____________________________

2. Minor Courses Completed (if applicable): ____________________________

3. Transferred or Petitioned Credits (and institution): ____________________________

Total Hours Completed ____________________________

4. Courses Remaining to Complete this Degree Program: ____________________________

Check one: Non-Thesis/Project □ Thesis □

Total Hours Remaining ____________________________

If thesis option, state title of thesis: ____________________________

____________________ ______________________
Signature of Applicant Date

(H) __________________ ______ (W) ____________________________
Phone #(s) of Applicant

___________
E-Mail Address

Signature of Major Professor ____________________________ (type name in full) Date

Signature of Department Chair ____________________________ (type name in full) Date

Approval of Dean of the Graduate School ____________________________ (Revised 03/09/07)
F. Request for Final Examination for M. S. Degree
THE GRADUATE SCHOOL - LOUISIANA STATE UNIVERSITY
REQUEST FOR MASTER'S EXAMINATION

(To be submitted to Graduate School 3 weeks prior to date of examination and by current semester deadline for graduates)

Date __________________________

The Department/School of __________________________ requests that the final examination of __________________________, __________________________ (major), for the Master of __________________________ degree, be scheduled on __________________________ (day of week), __________________________ (date), at __________________________ a.m./p.m. in Room __________________________, __________________________ Building.

Has this examination been scheduled previously? □ Yes □ No

MAJOR__________________________________ MINOR:

SUGGESTED COMMITTEE
(typed names)

If there is a minor, the minor department must be represented on the committee. There must be at least one full member of the graduate faculty. If you are including a member from the Southern University graduate faculty, indicate this with (SU) after the name.

______________________________________ Chair
______________________________________

______________________________________

Check one: Non-thesis/Project □ Thesis □

If thesis degree, state title of thesis:

______________________________________

______________________________________

Committee Chair (to be signed)

Chair or Head of Department (to be signed)

APPROVED:

______________________________
Dean, Graduate School

(Please submit 2 typed originals to the Graduate School)

(revised 03/12/07)
Appendix 4. Departmental Policy on Preparation of Theses and Dissertations

1. Due to limited funding and staffing, the Department of Biological Sciences cannot provide staff to type a thesis or dissertation, and is unable to pay for paper or copying of the final version of the thesis or dissertation.

2. In view of the very limited Departmental supply budget, any expenses that can be covered by grant funds by the major professor would greatly benefit the student and the Department.

3. 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.

4. 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 $50.00 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. Perhaps the most compelling standard by which original research can be judged is the peer-review process associated with publication in reputable scientific journals. Furthermore, unpublished investigations are of little or no benefit to science or 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. The importance of early publications by graduate students is highlighted by the fact that 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 (manuscript preparation etc.) 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.

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 (please consult with the Graduate School for particulars). Reprints from M.S. thesis research conducted at LSU may be included in the dissertation. Note: 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.
Appendix 6. Copy of Rotation Agreement
Rotation Agreement

Rotation 1: Faculty: ___________________________________________

Dates: Beginning ___________________ Ending _____________________

Goals: _________________________________________________________

_________________________________________________________________

Signatures: ______________________________________________________

Student ___________________ Faculty ___________________ Date _________

Rotation 2: Faculty: ___________________________________________

Dates: Beginning ___________________ Ending _____________________

Goals: _________________________________________________________

_________________________________________________________________

Signatures: ______________________________________________________

Student ___________________ Faculty ___________________ Date _________

Rotation 3: Faculty: ___________________________________________

Dates: Beginning ___________________ Ending _____________________

Goals: _________________________________________________________

_________________________________________________________________

Signatures: ______________________________________________________

Student ___________________ Faculty ___________________ Date _________