

DEPARTMENT OF BIOLOGICAL SCIENCES
GUIDE FOR GRADUATE STUDIES



This guide is circulated by the Department's Graduate Studies and Admissions Committee (GSAC).

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Please address suggested changes, in writing, to the Director of Graduate Studies.

Preface

This document, hereafter referred to as the “Graduate Guide,” is essentially a statement of departmental policy with regard to a number of facets of graduate study. It was organized by and is subject to continual scrutiny by the faculty and students. It is designed to assist you in your orientation to the Department and to graduate work at Notre Dame. Hence, each student should peruse the contents carefully, noting, in particular, the suggested normal progress of a graduate student toward completion of his or her degree.

In all matters of general academic policy and in deadlines on the academic calendar particularly, the students and faculty are subject to the official bulletins of the University and the Graduate School. In particular, The Academic Code of the Graduate School and the Graduate School Bulletin of Information takes precedence in all matters of graduate policy in the event of discrepancies with the Graduate Guide. It is your responsibility to become familiar with the contents of the Academic Code and the Graduate Bulletin (<http://graduateschool.nd.edu/about-the-graduate-school/print-materials/>). Students and faculty must realize that each person has a responsibility for maintaining high standards in the University, College, and Department. This can be done without automatic action often found in large institutions. The faculty wants to treat you as a mature individual and a colleague in a community of scholars working toward common goals of excellence in research and teaching.

SECTION I: GENERAL CONSIDERATIONS

A) Departmental Administration

The Department of Biological Sciences currently is administered formally by a Chairperson who is responsible to the Dean of the College of Science. If you have a suggestion, problem or other topic that you would like to discuss with the Chairperson, do not hesitate to see him/her. However, the Director of Graduate Studies (DGS) normally will deal with most questions and problems of graduate students on subjects ranging from academic matters to other concerns. Heavy reliance is made on the various standing committees for the development of new Departmental policies and for the implementation of existing policies (see next section). The graduate students also participate in the Biology Graduate Student Organization (BGSO), which is student-run and organized, and in the University-wide Graduate Student Union (GSU). As a graduate student, your formal or informal input to any committee is always welcome.

B) Standing Committees

Several faculty committees focus on various aspects of graduate education in this department. The DGS oversees the activities of the first four committees listed below.

Graduate Studies and Admissions Committee (GSAC): The primary objectives of this committee are to evaluate applicants for admission and financial support and to initiate new policies concerning graduate students and the graduate program. Besides the review of applications for admission, its responsibilities include:

1. Answering questions and receiving suggestions from anyone for the improvement of the Department's Graduate Program.
2. Reviewing policies associated with the functioning of the Department's Graduate Program and propose updates and revisions to be brought before the faculty for discussion and implementation.
3. Updating and distributing the Graduate Guide.
4. Serving as a liaison group between faculty and students.
5. Organizing nominations and making decisions concerning graduate student awards and recognition (e.g. Teaching Awards, Shaheen Award, etc.).
6. Meeting collectively with graduate students or faculty as requested.

Graduate Recruitment Committee: The primary goal of the committee is to actively recruit applicants to the Department's graduate program. The Committee also organizes an annual 'recruitment weekend' in the spring. This committee includes at least one graduate student member.

Graduate Student Relations Committee: The Graduate Student Relations has two primary functions, both of which apply to individual graduate students.

1. Hear allegations involving violation of academic integrity, make a finding, and recommend an action based on that finding.
2. Hear appeals of academic dismissal.

The Academic Code of the Graduate School contains information on the circumstances that will result in academic dismissal and a non-inclusive list of actions that constitute a violation of integrity in research or scholarship (see section 1, part M). The Committee does not handle cases involving harassment (see section 1, part N).

Graduate Student Rotations Committee: The primary objective of this committee is to help the DGS assign first laboratory rotations for incoming students. This committee also meets with incoming students doing rotations to provide advice about securing additional rotations during the first academic year and finding a permanent laboratory home.

Graduate Program and Curriculum Committee: The primary objectives of this committee are the review of, and appropriate action on all courses and requirements involving graduate education.

C) Graduate Student Administration

All graduate student administrative positions described below are filled by elections held each year during the spring semester. The exact date of the elections is determined by the Graduate Student Representative to the Faculty.

Graduate Student Union Representatives: The Graduate Student Union (GSU) is a University-wide organization for graduate students. The GSU organizes social events for graduate students, conducts workshops on various academic issues, provides grants to support graduate student participation at scholarly meetings and generally represents the concerns of

Notre Dame graduate students to the administration. There are two graduate student representatives to the GSU from each academic department. GSU representatives are voting members of the Union. They must attend monthly meetings of the GSU and be willing to serve on an additional GSU committee, which also meets monthly. The GSU representatives are responsible for keeping the faculty and graduate students current on pertinent issues.

Graduate Student Faculty Representative: The Graduate Student Faculty Representative acts as an intermediary between the graduate students and the faculty in biology. This representative attends all biology faculty meetings and reports to the graduate students on pertinent issues. The representative meets minimally twice a year with the biology graduate students to discuss problems, complaints, or suggestions that the graduate students may have. The representative then discusses these issues with the DGS or Department Chairperson.

Biology Graduate Student Organization: The BGSO is a student-run organization that receives support from The Graduate School and Department. The BGSO serves as a forum for graduate students to enhance scholarly and social activities within the Department, across the University, and with other institutions.

D) Admissions

An applicant for admission to the Graduate School must hold a bachelor's degree or its equivalent from an accredited American College or University or from a foreign institution of acceptable standing. The applicant should have earned at least a cumulative "B" average in his or her undergraduate courses. Applicants to the biology graduate program are expected to have completed undergraduate coursework and obtained research experience(s) in their intended field(s) of graduate study. The Graduate Record Examination scores (General Test) and 3 letters of recommendation must be filed at the time of application for admission. The Test of English as a Foreign Language (TOEFL) is required for all foreign applicants.

At the discretion of the GSAC, students not meeting all requirements may be admitted with the provision that deficiencies be made up without graduate credit at the earliest possible date. At the time of admission, the GSAC will notify the student of his/her status and file a list of deficiencies in the student's Departmental file. It shall be the responsibility of the advisor(s) and the student to arrange to remove the deficiencies by coursework or individual study within the first year or as soon thereafter as possible. The DGS should be notified in writing by the advisor immediately after removal of the deficiency. A student admitted on provisional status is not eligible for an advanced degree until all deficiencies have been formally removed.

E) Interim Advisor and Interim Committee

If a graduate student enters a laboratory directly, that faculty member serves as the curriculum and research advisor. Incoming graduate students not entering a lab directly will go into rotations. Their first rotation is assigned by the Director of Graduate Studies, working in consultation with the incoming students and current faculty. These assignments will be made with consideration of the specific academic interests of the student. The first rotation faculty member typically serves as the interim advisor and an interim advisory committee can be formed (usually consisting of subsequent rotation faculty or other appropriate faculty).

The interim advisors/committee will guide the student's program until a permanent research advisor is selected. The interim advisor and members of the interim advisory committee may, but are not required, to serve on the final advisory committee.

F) Research Area and Advisor

By the end of the second semester of the first year of residence, a Ph.D. student must have chosen a faculty member as a permanent advisor and have begun a research program. After securing the consent of a faculty member to be his or her permanent advisor, the student's advisor must immediately inform the Graduate Administrative Assistant of this fact in writing. Such written notice of mutual agreement is also required if a student should change permanent advisors later. After that, it is the responsibility of the research advisor to guide the student's program in formal courses and research and to provide counsel when necessary. The duties of the interim advisor are taken over entirely by the research advisor at this point. A student may, for whatever reason, change research advisors at any time. In that case, a letter must be sent by the new advisor to the DGS, indicating that this change has occurred.

G) Advisory Committee

The student, in consultation with his/her advisor, selects an Advisory Committee. This should be done early enough so that the Committee can have a useful role in their advisory capacity. For M.S. students, this will normally be by the end of the 2nd semester. For Ph.D. students, this will normally be by the end of the 1st semester of the second year. The members of the committee should be selected in order to best be able to contribute guidance and stimulation to the student in his/her graduate program and career interests. After selecting a committee and obtaining the approval of all the members to serve on the committee, the student must have the departmental Graduate Administrative Assistant file the appropriate form (APPENDIX 1: Request for Approval of Graduate Committee Members (MS and PhD)) for final approval of the committee.

The advisory committee for a Ph.D. shall consist of at least three faculty members plus the research advisor. The research advisor must be a Biology Department T & R faculty member (or Biology non-T & R faculty member or concurrent/adjunct T & R faculty who has been specifically approved by CAP to advise graduate students in Biology) and shall serve as chairperson. The research advisor also must read and approve the thesis, before it is circulated to the other committee members. Committee members, other than the advisor, can be of two types – either “official readers” who are voting members or non-voting members who are not official readers. In a 4-membered Ph.D. Advisory Committee, all 3 members are official readers of the thesis. If a 5-membered committee is needed or desired (see below), all four committee members must be official readers. If the student opts to have official co-advisors, then the Advisory Committee must consist of 5 members (2 advisors plus 3 official readers). Students may add additional voting members or add non-voting, non-reader members (beyond 5) if desired for their expertise.

The M.S. Advisory Committee consists of at least two other faculty members plus the research advisor. The research advisor must read and approve the thesis, before it is circulated to the other committee members. The other two members of the M.S. Advisory Committee are official readers of the thesis and voting members.

For both M.S. and Ph.D. committees, one or more of the committee members may be from other departments in the University as dictated by the student's interests. In some cases (e.g., interdisciplinary programs), the committee must have a member from a department outside of Biological Sciences and/or Notre Dame. Although Advisory Committees can have members from outside of the Department of Biological Sciences and/or Notre Dame, a majority of the committee members must be from the regular T & R faculty of the Department of Biological Sciences (i.e., 2 of the 3 for Masters students; 3 of 4 for a 4-member committee or 3 of 5 for a 5-member committee for PhD students). Concurrent and adjunct faculty members are not considered Biological Sciences faculty and are therefore not part of the BIOS ratio count. A student may also choose to have 5 members for other reasons (e.g., research coverage), but only official readers can be voting members. It is the responsibility of the student and advisor to support the expenses of outside committee members to travel to Notre Dame for Advisory Committee meetings.

Any non-T & R faculty committee member or a member from outside the Department must be specifically approved by the GSAC before he/she can serve on the Advisory Committee.

a) If the student and advisor request a T & R faculty committee member from a **department** outside of Biological Sciences, but within Notre Dame, a request must be made in writing by the student to the DGS accompanied by the proposed member's title, a brief explanation on how he/she will contribute to the student's project (i.e. current collaboration with advisor, part of an existing grant, etc.), and the written approval of the advisor. The request is then circulated to GSAC for final approval.

b) If the student and advisor request a **non-T & R** member from within Biological Sciences or from a different department outside Biological Sciences, but within Notre Dame, or a faculty member (T & R or non-T & R) from a **different institution** (a non-Notre Dame member), the same procedure as above is followed but the request must also be accompanied by appropriate documentation of the proposed committee member's professional qualifications (e.g., curriculum vitae).

The Advisory Committee is to be available for consultation, to help determine the program of coursework, and to safeguard the interests of the student, the Department, and the University. Its members shall also serve as members of the examining committee for the candidacy examinations, participate in the annual progress meetings required of all Ph.D. candidates, contribute readers for the dissertation, and serve as members of the committee hearing the oral defense of the dissertation or thesis.

H) Coursework

Every graduate student, regardless of the source of their financial support, is required to enroll and register for a minimum of 9 credits each semester. During the academic year, graduate students may register for a total of 12 credit hours in a semester. An additional 3 credit hours of 4XXXX-level courses may be taken if authorized by the DGS and approved by the Graduate School. If a student wishes to register for more than 12 credits, they must first have

the approval of their advisor and DGS. If a student wishes to register for more than 15 credits, they must also have approval of the Graduate School. In addition to the 9 credits per semester, each student is eligible for one “free” audit course (maximum of 3 credits). A second audit may be permitted with the permission of the DGS, and assuming that all required course work has already been completed. When receiving a summer stipend, graduate students need to enroll and register for 0 credits of BIOS 67890 Independent Summer Research. All students must be registered in the semester in which they plan to defend.

After a student has been in the graduate program for one full academic year, he/she can petition to have post-baccalaureate credits for formal course work (e.g., M.S. courses) relevant to Biological Sciences transferred to their Notre Dame record. Those credits must be approved by the DGS and will be included in the required coursework credit total (30 or 60). A student may transfer credits earned at another accredited university only if: (1) the student is in degree status at Notre Dame; (2) the courses taken are graduate courses appropriate to the Notre Dame graduate program and the student had graduate student status when he or she took these courses; (3) the courses were completed within a five-year period prior to admission to a graduate degree program at Notre Dame or while enrolled in a graduate degree program at Notre Dame; (4) grades of B (3.0 on 4.0 scale) or better were achieved; and (5) the transfer is recommended by the department and approved by the Graduate School. These five requirements also apply to the transfer of credits earned in another program at Notre Dame. The university of origin must submit a transcript directly to the Graduate School. Credits not earned on the semester system, such as trimester and quarter-hour credits, will be transferred on a pro rata basis. A student transferring from an unfinished graduate program may not transfer more than six semester credit hours into either a Notre Dame Master’s or Ph.D. program. If the student has completed a master’s or Ph.D. program, he or she may transfer up to nine semester credit hours to a Notre Dame master’s program and up to 24 semester-credit hours to a Notre Dame Ph.D. program.

In all cases, transfer of post-baccalaureate credits will be reviewed on a course-by-course basis by the DGS, in consultation with the major advisor and student. Students who would like to transfer post-baccalaureate credits should consult with their major advisor and then request that the Graduate Administrative Assistant complete the appropriate form (APPENDIX 1: Transfer of Credits) and submit this to the DGS. On the form the student must indicate: 1) the course titles and credit equivalents (of courses to be transferred); 2) the degree program and location (in which the credits were obtained) and 3) any explanations necessary to interpret the courses or course credits. It should be noted that, before the Graduate School will consider course transfers, a copy of the official transcript must be on file in the Graduate School indicating the course titles, credits and grades for all courses being considered.

l) Changes in Class Schedules

A graduate student may add courses only during the first six class days of the semester. Students may add courses after this time only on recommendation of the department and with approval of the Graduate School. A student may drop courses during the first six class days of the semester. To drop a course after this period and up to the mid-semester point (see the Graduate School Calendar for the exact date), a student must have the approval of the Instructor of the course, the department, and the Graduate School. A course may be dropped

after the mid-semester point only in cases of serious physical or mental illness. Courses dropped after this date will be posted on the student's permanent record with the grade of "W." A course taken for credit can be changed to an audit course after the mid-semester point only in cases of serious physical or mental illness.

J) Graduate Grades

Listed below are graduate grades and the corresponding number of quality points per credit hour.

| | | |
|----|-------|--|
| A | 4 | |
| A- | 3.667 | |
| B+ | 3.333 | |
| B | 3 | |
| B- | 2.667 | |
| C+ | 2.333 | |
| C | 2 | |
| C- | 1.667 | |
| D | 1.000 | |
| F | 0 | |
| I | 0 | (If Incomplete is not removed by the deadline, it changes to an "F") |
| NR | None | No grade reported |
| S | None | Satisfactory |
| U | None | Unsatisfactory |
| V | None | Auditor (graduate students only) |
| W | None | Withdrew |

Quality point values are used to compute the student's grade point average (GPA). The GPA is the ratio of accumulated earned quality points to the accumulated earned semester credit hours. GPA computation takes into account only those grades earned in Notre Dame graduate courses by students with graduate status at Notre Dame. For courses taken in a department or college in the University but outside the Graduate School, or taken outside the University, the grade will not be included in the GPA computation. Grades of C- and D are awarded in the Graduate School and are used to calculate both semester and cumulative G.P.A.; however, they will not be accepted for completion of graduate degree requirements, specific required coursework, and/or total credit hours for completion of coursework. If a student receives lower than a grade of C in a required course, he or she must either retake the same course or its equivalent as determined by the program to fulfill the degree requirement.

A student receives the temporary grade of "I" when, for acceptable reasons, he or she has not completed the requirements for a 50XXX or higher level graduate course within the semester or summer session. No grade of "I" can be given for courses below the 50XXX level or to graduating students in the final semester or final summer session of a terminal degree program. A grade of "Incomplete" (I) should be given only in exceptional circumstances when there are compelling reasons. Then a student receives a grade of I, he or she has 30 days from when grades were due (for the semester in which the I was given) to complete the coursework for a grade. If the coursework is not completed by this date, the grade of "I" will be changed

permanently to a grade of F. Extensions for Incompletes require formal approval from the associate dean of students in the Graduate School. The department and the Graduate School will review a student who receives more than one "I" in a semester or an "I" in two or more consecutive semesters, to determine his or her eligibility for continued support and enrollment.

Formal course credits are awarded for those courses that receive a standard letter grade. The grades of "S" and "U" are used in courses without semester credit hours, as well as in research courses, departmental seminars, colloquia, workshops, directed studies, field education and skill courses. These courses, if given the grade of "S," do figure in a student's earned semester credit-hour total but do not count as formal course credits towards the degree (only towards total credits) nor do they figure in the computation of the GPA. A grade of "U" will not count toward the student's earned semester credit-hour total, nor will it figure in the computation of the GPA.

The grade of "V" has neither quality-point nor credit-hour values. It is the only grade available to the registered auditor who requests at the beginning of the semester that it be made part of his or her permanent record and who attends the course throughout the entire semester. The grade of "V" cannot be changed to a credit-earning grade. Normally, graduate students are limited to auditing a maximum of two courses per semester.

The grade of "W" is given for a course that a student is allowed to drop after the mid-semester point.

Unexcused absence from a scheduled final examination results in an "F." An absence excused in advance results in an "I" (incomplete).

K) Standards of Performance in Coursework and Research

The status of any graduate student who receives a grade below B- (including U grades) is subject to review by the DGS. The student will receive a warning letter from the DGS indicating that this grade is unacceptable and that obtaining similar grades in the future may result in expulsion from the graduate program. In the letter the DGS will also indicate if the student's overall GPA is in violation of Graduate School requirements (see next paragraph). If a student receives two grades below B- (not necessarily within the same semester) the DGS, after consulting with the student's advisory committee and/or interim advisor, may recommend dismissal to the Chairperson of the Department. These guidelines for unacceptable academic performance hold for students seeking the Master's degree as well as for those seeking their Ph.D.

It should be emphasized that the Graduate School requires that: a) Continuance in the graduate degree program, admission to degree candidacy and graduation require maintenance of at least a 3.0 (B) cumulative GPA and b) A student may be dismissed from the department or program if the GPA in any one semester is below 2.5 or if the GPA is below 3.0 for any two semesters.

In addition to performance in class work, at the completion of each Spring Semester the DGS will review the overall progress of each graduate student. Specifically, the DGS will examine 1) grades; 2) progress in scheduling and completing oral and written comprehensive examinations according to published guidelines (for specific degree requirements see Section II: Degree Programs); 3) results of oral and written comprehensive examinations; 4) performance as a teaching assistant (if applicable: See Section III; Part A) and 5) progress in thesis research.

Depending on the outcome of the review, different actions will be taken. For most students, no action will be necessary. However, the DGS will notify in writing students and their major advisors if a deficiency is observed in one of the areas listed above. The student must correct the deficiency according to the appropriate guidelines given in the Graduate Guide. If the deficiency is not corrected, then the student may be terminated from the graduate program. During the reviews, grades and GPAs will be monitored using University transcripts that are updated each semester. Comprehensive examinations will be monitored using the forms that are submitted when a graduate student schedules and completes a written or oral examination. Performance as a teaching assistant (TA) will not be considered in evaluating overall academic performance but will be monitored to determine if a student's teaching assistantship will be renewed (see Section III, A. Graduate (Teaching) Assistantships). Progress in thesis research will be monitored through the summaries of annual advisory committee meetings required of every student (see Section II; part D).

1. Assessment of Student Progress

If an advisor has serious concerns about a student's academic performance or progress to degree, he or she should communicate this to the student in written form. This should be copied or forwarded to the Director of Graduate Studies. If the advisor's recommendation calls into question the student's suitability for the program, the DGS will issue a warning letter to the student that specifies the concerns and the steps necessary to correct the situation, as well as the consequences of continued substandard academic performance. If the student's advisor happens to be the Director of Graduate Studies, this letter will be then initiated by the Chair of the department. The warning letter should specify a specific date when the student's progress will be re-evaluated. A copy of the warning letter should be sent to the Associate Dean of Students in the Graduate School.

If the student does not meet the stipulations outlined in the warning letter within the timeframe specified, the student will be either put on probation or dismissed from his or her program of study.

2. Graduate Student Status Designations

There are two status designations available to graduate students: in good standing and on probation. A graduate student can only have one designation, per program, at any given time.

Graduate students who are enrolled and making satisfactory progress in their program of study are considered in good standing.

A student who does not meet the stipulations within the timeframe outlined in the warning letter may be placed on probation. On probation status is intended to offer a student a final opportunity to correct deficiencies in his or her academic progress. Normally, a student will be on probation one or, at most, two semesters. A student on probation must complete the stipulations outlined in the probation letter within the timeframe outlined or will be dismissed from his or her program of study.

Students on probation are ineligible for financial support from the Graduate School (stipend, full tuition, health subsidy, and professional development funds) except for a tuition scholarship that covers eight of the nine credit hours required to maintain full-time status. While on probation, if a student meets the stipulations within the timeframe outlined in the

probation letter, as decided by the program, the student will return to in good standing status the next semester of enrollment.

In addition to the probation letter initiated by the student's program of study, there are three ways in which a student may be placed on probation by the Graduate School. These are:

1. A cumulative grade point average below 3.0 in any two semesters;
2. A failure to pass candidacy exams by the end of the eighth semester;
3. Earning a U in research for two consecutive semesters.

Students who are placed on probation by the Graduate School will receive an official letter from the Associate Dean of Students in the Graduate School that informs them of their status change.

3. Dismissal of a Student

Failure of a student to meet the stipulations within the timeframe outlined in either the warning letter or the probation letter may lead to dismissal from the program.

A student can be immediately dismissed from his or her program of study for the following reasons without a warning letter or a period of probationary status.

Extreme Under-performance: This dismissal will be applied to a student whose performance is deemed wholly unacceptable by the student's advisor, director of graduate studies, or program faculty. A G.P.A. below 2.5 in any single semester, or below 3.0 for two consecutive semesters; three consecutive U grades in research are examples of extreme underperformance.

Inability to Secure a Laboratory/Advisor: In some cases, a student may not be able to secure a laboratory and/or advisor. Incoming students are expected to secure an advisor before the end of their second semester. Failure to do so results in the students being placed on probation and given a specified period of time to find a permanent advisor or they are dismissed. Other circumstances, in which a student must find a new advisor midcareer, will be evaluated on a case-by-case basis to determine the appropriate length of time for securing a replacement advisor. If the student and the director of graduate studies are unable to find an advisor after the specified grace period, the student may be dismissed from the program.

Threat to Health and/or Safety: In rare circumstances, continued enrollment of a graduate student may constitute a serious disruption of the residential community or the academic environment. A student may be dismissed if: (a) The student poses a direct threat to the health or safety of himself or herself or others, or has seriously disrupted others in the student's residential community or academic environment; or (b) the student's behavior or threatening state is determined to be the result of a medical condition, or the student refuses to cooperate with efforts deemed necessary by the University Health Services and/or the University Counseling Center to evaluate the cause of the student's behavior or threatening state. In some circumstances, the level of care and accommodation recommended may exceed the resources or appropriate staffing capabilities of the University or may be beyond the standard of care that University Health Services can be expected to provide or monitor.

The Graduate School is responsible for monitoring and assessing the academic progress of its students. However, there are other reasons for which a student can be disciplined, up to immediate dismissal from his or her program of study. For more details on these policies, please consult duLac: A Guide to Student Life (<http://dulac.nd.edu>).

Students will be notified in writing, by the director of graduate studies, of the decision to dismiss them from their program of study for academic reasons. This notification will also be sent to the associate dean of students. The student may appeal the decision per the Academic code of the Graduate School.

L) Enrollment

Once admitted, all degree and non-degree graduate students must enroll before each semester at the times and locations announced by the University Registrar. Enrollment dates are published in the Graduate School Calendar. Any admitted student who fails to enroll for one semester or more must apply for readmission upon return. (See “Continuous Enrollment” below).

All degree-seeking students are expected to maintain full-time status and to devote their full time to graduate study. **No degree student may hold a job, on or off campus, without the expressed written permission of the DGS, Department, and the Graduate School.**

1. Full-time/Part-time Student Status

A full-time student is one who registers for 9 or more credit hours of required course work per semester in the academic year and 0 credit hours of Independent Summer Research in the Summer Session.

A part-time student is any enrolled graduate student who does not fall within the preceding category. For loan purposes, a half-time student is a part-time student who registers for at least six credit hours per semester in the academic year or three credit hours in the Summer Session.

2. Continuous Enrollment

All students must enroll each semester in the academic year to maintain student status. Continuous enrollment is met normally by enrollment in the University and registration in a graduate-level course relevant to the student’s program. A student who is concurrently pursuing degrees in the Graduate School and in another school in the University meets the continuous enrollment requirement by registering for a course in either program. Any exception to this rule, including a leave of absence, must be approved by the Graduate School. (See “Leave of Absence” below.)

Students not in residence and taking one credit hour pursuant to continuous enrollment requirements are charged a special registration fee.

A student who fails to enroll for one semester or more must apply for readmission upon return.

3. Leave of Absence

For exceptional reasons and on the recommendation of the department, a student in good academic standing may request a leave of absence for a maximum of two consecutive semesters. A request for a leave of absence must be made before the semester in which the leave is taken and all leaves of absence must be approved by the Graduate School as outlined in the Academic Code of the Graduate School and the Graduate School Bulletin of Information (<http://graduateschool.nd.edu/about-the-graduate-school/print-materials/>). If, for some urgent reason, a student is allowed to leave the University after the beginning of the semester, the withdrawal procedure below must be followed. If at the end of the leave of absence period the

student does not return, the student is considered terminated. Application for readmission is required if the student wishes to return.

In the case of a medical leave of absence, clearance from the University Health Center is required prior to readmission.

4. Childbirth and Adoption Accommodation Policy

This policy is intended to assist graduate students who are new parents. It is a supplement to the six week medical separation policy. Unlike the medical separation policy that covers any medical condition, this accommodation policy addresses a single set of circumstances: new parenthood. It is not a leave of absence; it is an accommodation. Students maintain their standing as students and are eligible for financial support. The full policy is in the Academic Code of the Graduate School and the Graduate School Bulletin of Information (<http://graduateschool.nd.edu/about-the-graduate-school/print-materials/>).

5. Withdrawal from the Program

To withdraw from the University before the end of the semester, a student must inform the DGS, Department, and the Graduate School as well as complete the notice of withdrawal for the Registrar's Office. Upon approval of the withdrawal, the University enters a grade of "W" for each course in which the student was registered. If a student drops out of the University without following the procedure described above, a grade of "F" is recorded for each course. The credit for any course or examination will be forfeited if the student interrupts his or her program of study for five years or more.

The University reserves the right to require the withdrawal of any student when academic performance, health status or general conduct may be judged clearly detrimental to the best interests of either the student or the University community.

M) Academic Integrity

The official Graduate School policy on academic integrity is outlined in the Academic Code of the Graduate School and the Graduate School Bulletin of Information (<http://graduateschool.nd.edu/about-the-graduate-school/print-materials/>). The Department of Biological Sciences Academic Integrity and Appeals Procedure is presented in APPENDIX 2.

N) Policies on Harassment and Other Aspects of Student Life

The official Graduate School and du Lac policy on Harassment and other aspects of student life can be found in duLac: A Guide to Student Life (<http://dulac.nd.edu> and <http://dulac.nd.edu/community-standards/important/>).

SECTION II: DEGREE PROGRAMS

The Department of Biological Sciences offers two advanced degrees: the Masters of Science (MS) degree and Doctor of Philosophy (Ph.D.) degree.

A) MASTER'S PROGRAM

The Biological Sciences Department offers a Master of Science degree which, in partial fulfillment for that degree, requires the successful completion of a research thesis. A non-thesis Master's degree can be obtained, but only under exceptional circumstances and only after certain special criteria (to be discussed subsequently) are met.

a. The research Master of Science requirements are that the student must:

1. Register *minimally* in full-time status for one semester during the academic year or for one summer session.
2. Successfully complete a minimum of 30 credit hours of courses and thesis research while maintaining a grade point average of at least 3.0.
3. Fulfill deficiencies, and/or additional requirements set by the student's Advisor and/or the Advisory Committee.
4. Pass an oral preliminary examination that concentrates on a thesis research proposal.
5. Write a thesis on research conducted under the direction of an advisor and committee.
6. Pass a defense of the thesis.
7. There is no teaching requirement for a Master of Science degree and no requirement for a comprehensive written examination.

b. Procedure for Implementation of Requirements (see APPENDIX 3 for MS timeline).

1. Courses

- Normally, courses are selected from the 50XXX or 60XXX level. However a maximum of 6 credits of courses at the 40XXX level is allowed. No graduate credit will be given for courses under the 40XXX level. A minimum of 9 credits is allowed for thesis research. Thus, a minimum of 15 hours of formal course work is necessary. In addition, one credit hour of graduate seminar per year in which students present their research to a broad scientific audience is required for all Master's students in Biological Sciences. The formal graduate seminars in which students present their research to a broad scientific audience will count towards the 15 hours of formal course work.
2. Students entering in Fall 2014 or later must complete requirements in identified specific curriculum areas, including Foundational Discipline Knowledge, Advanced Discipline Knowledge, Professional Skills, Research Tools, Trans/ Interdisciplinary Thinking, and Ethics (Responsible Conduct of Research

Training or at least one formal course or workshop). These requirements are described more fully in APPENDIX 4. Formal coursework may also be selected from a limited number of Indiana University School of Medicine - South Bend (IUSM-SB) courses subject to space availability and approval of its Director. To enroll, the student should first consult with the IUSM-SB professor in charge of the course and then the student's advisor submits a request to the Director of the IUSM-SB. The number of credits involved must be negotiated before enrollment.

2. The Oral Preliminary Examination

The Oral Preliminary Examination cannot be taken until the Advisory Committee has been approved by the DGS (see section I, part G for Advisory Committee composition requirements). This examination, which emphasizes the student's thesis research, will be administered by the student's Advisory Committee, generally not later than mid-semester of the student's third semester in residence and at least 6 months prior to the anticipated thesis defense date. Permission to extend this deadline must be requested in writing by the student's advisor to the GSAC, giving cause for the requested delay. The appropriate form to schedule the exam (APPENDIX 1: Reporting Form for Results of Oral Candidacy Exams (MS and PhD) and Dissertation Defenses (PhD) with scheduling information filled in but unsigned by the committee) must be filed in the Departmental office at least one week in advance of the arranged examination time. The oral examination will not be open to the public.

For the examination, the entire thesis committee will meet simultaneously with the student. Normally, such examinations can be expected to take approximately two hours, but no time limit is implied herein. A written thesis proposal in the format and style specified by the advisor must be submitted to the advisory committee at least 2 weeks prior to the oral examination. The oral examination should start with a 30-50 minute presentation of the student's research proposal, including a clear description and justification of the research topic, investigations already completed, and the proposed experiments designed to address the completion of the research project. Following this presentation, the committee will then question the student on the proposed dissertation research. Although the emphasis of questioning should be on the dissertation research, questions on any area of biology may be asked.

The decision to PASS a student on the oral preliminary examination requires a vote of 2 out of 3 of the committee members and should be completed immediately following the examination. The student will be immediately notified of the outcome of the exam. For a student to be admitted to candidacy (see below), he or she must "give sufficient evidence of his or her research capability." With this in mind, it is assumed that a PASS decision by the thesis committee is a reflection of that expectation.

After successful completion of steps 1 and 2 of this section, the student must file the appropriate form (APPENDIX 1: Reporting Form for Results of Oral Candidacy Exams (MS and PhD) and Dissertation Defenses (PhD) (completed and signed by examining committee) and the Departmental Verification of Graduate Examinations (MS and PhD)) with the departmental Graduate Administrative Assistant, confirming the completion of the preliminary oral examination. At the same time, the student should, using the appropriate form (APPENDIX 1: Request for Approval of Tentative Thesis/Dissertation Title (MS and PhD)), request approval from the DGS for his/her thesis title. Approval of the title signifies Departmental approval of the thesis project.

3. The Research Thesis

The thesis submitted must be a research thesis containing original research on the chosen topic. A thesis based solely on library inquiry is unacceptable.

4. The Thesis Defense

The defense of the thesis occurs in four steps. The first step is the reading of the thesis by the advisor and the *Approval of the Advisor* for circulation of the thesis to the rest of the committee. The second step is an *Approval of the Written Thesis by the Readers*, the third is an *Oral Defense of the Thesis* and the fourth step is the *Submission of the Thesis to the Graduate School*.

i. Advisor Approval

Prior to circulating the thesis to the readers of the committee, the major advisor must sign the title page. This signifies the approval of the advisor and indicates that the thesis is in a form that he/she feels is capable of being circulated. If the thesis is not signed by the advisor then the committee members can refuse to read it.

ii. Approval of Readers

The approval of the written thesis will consist of a thorough reading of the thesis by the two members of the student's thesis committee other than the student's major advisor. These individuals now designated as "official readers" can either approve or disapprove the thesis as presented.

In the event that the thesis is disapproved by one or more of the readers, the appropriate changes must be made after consultation with the student and/or his advisor and/or other committee members. Both readers must approve the thesis before an oral defense is arranged. Approval by a reader implies that the thesis is defensible and is essentially in final form as far as that reader is concerned; however, further revisions may still be required after the defense (see point iii below). Approval of the thesis by a committee member is indicated by the reader signing the appropriate form (APPENDIX 1: Reader's Report on Master's Thesis) and submitting it to the departmental Graduate

Administrative Assistant. These forms will be prepared by the Graduate Administrative Assistant. The student should give them to the readers when the thesis is circulated.

iii. Thesis Defense

After approval from the official readers is obtained, the student will arrange for an oral defense of the thesis to be administered by the entire thesis committee. This is done by submitting the appropriate form (APPENDIX 1: Application for Admission to Master's Degree Candidacy with scheduling information filled in but unsigned by the committee) to the departmental Graduate Administrative Assistant. The defense of the thesis should start with a 40-50 minute presentation of the thesis research, followed by an oral examination by the committee members. The presentation of the research is open to the public; however, the oral examination following the presentation is not. Formal public notice (outside of the committee members) of the thesis defense is not required for the M.S. degree. A decision to PASS this examination will be based on a simple majority (2 of 3).

It should be noted that an "approved" thesis does not imply that changes cannot be made in the written thesis. The oral defense may bring to light considerations not apparent in the written manuscript which, in a committee person's opinion, necessitate change. In that event, a final decision may be (but not necessarily) withheld until such changes are implemented, after appropriate consultation between the parties concerned.

iv. Submitting the Thesis to the Graduate School

After the readers approve the thesis, the candidate should deliver the completed thesis to the Graduate School on or before the date specified in the Graduate School Calendar. The thesis must be written in a form acceptable to the Graduate School (see <http://graduateschool.nd.edu/resources-for-current-students/dt/>)

5. Admission to Candidacy:

To qualify for admission to candidacy, a student must be in a Master's degree program. He or she must have been enrolled in the program without interruption, maintained a minimum cumulative GPA of 3.0 in approved course work, have successfully completed the preliminary oral examination, have received departmental approval of his or her thesis proposal (see above, #2), and have successfully completed the thesis defense. Admission to candidacy is a prerequisite to receiving any graduate degree. It is the student's responsibility to apply for admission by requesting the appropriate form (APPENDIX 1: Application for Admission to Master's Degree Candidacy (now completed and signed by the committee)) from the departmental Graduate Administrative Assistant.

c. Complications with Regard to the Research Master's Program

1. The Preliminary Oral Examination

If the student fails his/her first oral examination the committee can recommend to the Director of Graduate Studies that the student be dismissed, or be allowed to retake the examination. If recommended, a retake of the examination must be done within 6 months of the original examination. A second failure automatically results in dismissal. A student dismissed under either of the above circumstances cannot obtain a non-research master's degree.

2. The Thesis Defense

In the event a student cannot obtain approval from one or both of the readers, the student may petition his/her major advisor, the GSAC, and the Departmental Chair for a non-thesis Master's. All of the above (i.e., including a majority of the GSAC) must agree before a non-thesis Master's is granted. Non-approval by any of the three results in dismissal without a Master's degree.

A student failing his or her thesis defense will be allowed to retake it. In the event of a second failure the student can request a non-thesis Master's Degree. In order for this request to be granted, approval must be given by the student's major advisor, a majority of the GSAC and the Chair of the Department.

3. Graduate Work Beyond the Master's Degree

A student originally admitted into the thesis Master's program may desire either to enter the Ph.D. program directly or continue toward a Ph.D. after receiving the thesis Master's degree. To implement this change the student, with the support and approval of his thesis advisor and committee, should apply for the Ph.D. program through the GSAC and the Graduate School.

d. Degree Eligibility

Failure to complete all requirements for the Master's degree within 5 years results in forfeiture of degree eligibility.

B) DOCTORAL (Ph.D.) PROGRAM

a. The Ph.D. degree requirements are that the student must:

1. Register *minimally* as full-time status for four consecutive semesters.
2. Successfully complete a minimum of 60 credit hours of courses and dissertation research while maintaining a grade point average of at least 3.0.

3. Fulfill deficiencies, and/or additional requirements set by the student's Advisor and/or the Advisory Committee.
 4. Pass comprehensive examinations consisting of both an oral and a written examination.
 5. Complete a one-year (2-semester) teaching requirement as a teaching assistant.
 6. Meet with the Advisory Committee on an annual basis.
 7. Submit at least one peer-reviewed article where the student was a major contributor (for students entering in fall 2014 or later).
 7. Write and officially have approved a dissertation on research conducted under the direction of an advisor and committee.
 8. Pass a defense of the dissertation.
- b. Procedure for Implementation of Requirements (see APPENDIX 5 for PhD timeline)
1. Courses
 The Department of Biological Sciences requires that doctoral students accumulate 60 credit hours of combined coursework and research credits. Of the 60 credit hours, no more than 8 credits may be in courses numbered 40XXX. No graduate credit will be given for courses under the 40XXX level. The remainder must be in 50XXX-60XXX level courses. The total 60 credit hour doctoral requirement may consist of any combination of formal classes, seminars, directed studies and research but must include a minimum of 24 hours of formal courses.
 In addition, one credit hour of graduate seminar where students present their own research to a broad audience per year is required for all graduate students in Biological Sciences entering before fall 2012. For students entering in fall 2012 or later (APPENDIX 6), the seminar credit requirement is 3 credit hours over the course of the student's degree program. Each student must give a public oral presentation of their research each year. This requirement may be fulfilled by participation in a seminar course that allows them to present their research to a broad audience or by attendance and presentation at a local, national, or international conference. In the early stages of their program, when students may not have data to present, they should take the formal seminar course where they will be given the opportunity to present ideas for research they want to do. This will satisfy the oral presentation requirement. In the later stages of their graduate career, the expectation is that this requirement will be fulfilled by presenting research at conferences and meetings. Presentation in laboratory meetings or the oral candidacy defense will not fulfill this requirement. The formal graduate seminars in which students present their research to a broad scientific audience will count towards the 24 hours of formal course work. Students entering in fall 2012 or later must complete requirements in identified specific curriculum areas (see APPENDIX 6), including Foundational Discipline Knowledge, Advanced Discipline Knowledge (min 3 formal courses), Professional Skills, Research Tools (min of 1 formal course),

Trans/interdisciplinary Thinking, and Ethics (Responsible Conduct of Research training or at least one formal course or workshop).

Formal course work may also be selected from a limited number of Indiana School of Medicine - South Bend courses subject to space availability and approval of its Director. To enroll, the student should first consult with the IUSM-SB professor in charge of the course and then the student's advisor submits a request to the Director of the IUSM-SB. The number of credits involved must be negotiated before enrollment.

After being enrolled in the graduate program for one year, students with the appropriate approvals may be eligible for transferring a limited number of graduate credits towards their coursework (see Section I part H for details).

2. Comprehensive Examinations

The Candidacy Comprehensive Examinations consist of two parts, a written examination followed by an oral examination, the latter of which also includes a written research proposal. The written examination cannot be taken until the Advisory Committee has been approved by the DGS (see section I, part G for Advisory Committee composition requirements). The oral examination cannot be taken until the student clears any deficiencies or additional requirements of the Advisory Committee and successfully completes the written comprehensive examination. Both written and oral examinations are administered by the approved Advisory Committee and can cover the entire area of biology but normally emphasize areas relevant to the student's research interests. The oral examination generally deals more directly with the dissertation research. The written examination should be taken by the end of the second year of study and the oral examination should be taken within 6 months of passing the written exam, typically during the third year. The Graduate School requires that students pass the oral candidacy examination by the end of the 8th semester (i.e., fourth year). Failure to do so will result in the graduate student being placed on probation and the termination of any funding provided by the Graduate School and College of Science.

Steps to be followed in planning the Written Candidacy Examination:

- i. The written candidacy examination is to be taken before the end of the second year of graduate studies. The exam will be composed of written questions solicited by the advisor from faculty members serving on the student's Advisory Committee. Each set of questions should take no longer than 3 hours to complete. The answers will be reviewed by the faculty member who provided them.
- ii. The advisor administers the examination. The examination should be taken in one of the Department's seminar rooms and advanced scheduling of the examination with the Graduate Administrative Assistant is the responsibility of the student. The entire examination must be completed within three

consecutive weekdays for a four-member Advisory Committee and within four consecutive weekdays for a five-member Advisory Committee. The examination periods specified here include a maximum of one 'gap day' allowable **at the discretion of the advisor**. If no 'gap day' is allowed by the advisor, then the four-member committee examination will be completed in two consecutive weekdays and the five-member committee examination in three consecutive weekdays.

- iii. Students may use their personal computer to complete their written exams. However, the student must follow the specifications of the individual committee members with respect to whether access to the Internet or use of any existing files on their computer is allowed during their portion of the examination (i.e. whether it is an open- or closed-book examination).
- iv. The examinations are returned to the examiners and should be graded within seven days. The following grades are given individually, by each committee member, for the section of the written exam he/she grades:
 - High Pass: An exemplary answer to all questions
 - Pass: An adequate answer to all questions
 - Low pass: Adequate answers to some but not all questions
 - Fail: Inadequate answers; answers lacking in key aspects
- v. To pass the entire written Candidacy Examination, the candidate must receive a grade of Low Pass, Pass or High Pass on 3 of 4 sections of the exam (4-member committee) or 4 of 5 sections of the exam (5-member committee). The DGS should be informed in writing of the outcome by submitting the appropriate form (APPENDIX 1: Departmental Verification of Graduate Examinations (MS and PhD))¹.
- vi. If the candidate fails the written examination, he/she may be given a second opportunity to be examined if the Advisory Committee recommends it and with the approval of the DGS. At the discretion of the Advisory Committee, the candidate may be required to retake only those parts failed, which should be done within 3 months. Upon recommendation of the examining committee, the student may be required to take formal course work in a particular area. If a second failure on the written examination occurs, the candidate will be dismissed from the graduate program.

Steps to be followed in preparing the Written Research Proposal:

- i. At least two weeks prior to the oral examination, the student must submit to the advisory committee a written thesis proposal approved by the advisor. Requirements for the proposal rigor and format should be discussed with the advisor and advisory committee prior to submission of the written proposal. In general it should meet the requirements of an NSF Doctoral Dissertation

¹ Certain research groups may have more stringent requirements for passage of the written examination.

Improvement Grant in the Directorate for Biological Sciences or an NIH Ruth L. Kirschstein National Research Service Award (NRSA).

Steps to be followed in planning the Oral Candidacy Examination:

- i. Once the candidate passes the written exam and prepares the written research proposal, the student arranges an agreeable time with the examining committee for the Oral Candidacy Examination. The student requests that the departmental Graduate Administrative Assistant (APPENDIX 1: Reporting Form for Results of Oral Candidacy Exams (MS and PhD) and Dissertation Defenses (PhD) with scheduling information filled in but unsigned by the committee) complete the appropriate form to schedule the Oral Candidacy Examination with the Graduate School. This should be done at least 2 working days in advance of the exam date. The Graduate Administrative Assistant will formally notify the members of your committee of the date/time/location of the exam 3-4 days before the examination. It is expected that all committee members be physically present during the oral examination. However, if a committee member cannot be present, it is allowed for that person to attend the oral examination via remote access (i.e. SKYPE, telephone/video conference, etc.). Only one member of a committee can be a remote participant.
- ii. The oral examination should begin with a 40-50 minute presentation of the student's research proposal, including a clear description and justification of the research topic, investigations already completed, and the proposed experiments designed to address the research project. This presentation should be a summary of the written research proposal. Following this presentation, the committee will then question the student on the proposed dissertation research. Although the emphasis of questioning will be on the dissertation research, questions on any area of biology may be asked. During the oral exam, the committee should ensure that:
 - The examination is conducted in an orderly fashion;
 - It is conducted over a period of not less than one and one-half hours and not more than two and one-half hours (the distribution of time among the examiners and all other details being settled *before* the student is admitted to the room);
 - The subject matter is well covered; and
 - Examiners do not answer their own questions or guide the student in answering those questions. The purpose of the examination is to find out how much the student knows and to determine whether this knowledge is sufficient for a Ph.D. candidate.
- iii. Voting on the Oral Candidacy Examination should take place using the form provided by the graduate school. Only one FAIL is allowed. Thus, 3 of 4 votes to pass are required on a 4 member committee or 4 of 5 votes to pass are required for a 5 member committee. Following the vote to pass or fail,

the committee will discuss passing students and assign them a grade of (1) High Pass – an exemplary performance on the exam, (2) Pass – an adequate performance, or (3) Low Pass – a marginal performance on the exam. The student's advisor must record the results of the oral examination by filing the appropriate forms (APPENDIX 1: Reporting Form for Results of Oral Candidacy Exams (MS and PhD) and Dissertation Defenses (PhD) (completed and signed by examining committee) and the Departmental Verification of Graduate Examinations (MS and PhD)) at the end of the examination and providing them to the Graduate Administrative Assistant who will forward them to the Graduate School.

- iv. . If the candidate fails the oral examination, he/she may be given a second opportunity to be examined if the Advisory Committee recommends it with the approval of the DGS, which should be done within 6 months (but before the end of the 8th semester or the student will be placed on probation and be ineligible for support from the Graduate School and the College of Science). Upon recommendation of the advisory committee, the student may be required to take formal course work in a particular area. If a second failure on the oral examination occurs, the candidate will be dismissed from the graduate program.
- v. A Master's degree may be awarded to a student who fails the written or oral Ph.D. candidacy examination, or does not meet other departmental requirements, but has demonstrated satisfactory performance in other areas. This is a terminal degree from this department and is intended to protect the student from investing excessive time in advanced training in an environment that seems not to pertain to his/her best talents.

4. Admission to Candidacy

A student may be formally admitted to candidacy only after completing the following:

- i. Satisfactory performance on the written and oral comprehensive examinations.
- ii. Approval by the DGS of the thesis title.
- iii. Completion of a minimum of 24 formal credit hours of approved graduate study with a cumulative average of 3.0 or better.
- iv. Formal application to the Graduate School by the DGS.

Upon completing these requirements, the student requests that the Director of Graduate Studies submit the appropriate form (APPENDIX 1: Application for Admission to Doctoral Degree Candidacy) to the Graduate School to be officially admitted to candidacy. Note: A student cannot graduate without having the appropriate forms for candidacy filed with the Graduate School.

5. Teaching Requirement

An essential part of the training for a doctoral degree is experience in teaching. This is fulfilled by a one-year (2 semester) teaching requirement that is automatically completed if the student holds a teaching assistantship for one or more years. If the student is supported by a research assistantship or a fellowship, then the requirement must be fulfilled either by taking a teaching assistantship for a year or by volunteering to assist in the teaching of undergraduate or graduate laboratories or enrolling in the Graduate Teaching Apprenticeship course (<http://biology.nd.edu/graduate/teaching-apprenticeship-in-biological-sciences/>).

6. Doctoral Dissertation

The student will complete a dissertation under the direction of the research advisor that will demonstrate ability to carry out independent research. The dissertation must be written in a form acceptable to the Graduate School (<http://graduateschool.nd.edu/resources-for-current-students/dt/>).

7. Defense of Dissertation

The defense of the dissertation occurs in five steps.

i. Approval of the Advisor

Prior to circulating the dissertation to the readers of the committee, the major advisor must sign the title page. This signifies the approval of the advisor and indicates that the dissertation is in a form that he/she feels is capable of being circulated. If the dissertation is not signed by the advisor, then the committee members can refuse to read it.

ii. Approval of the Official Readers

A graduate student's Ph.D. advisory committee consists of 4 or 5 faculty members, i.e., his research advisor and three or four other professors requested by the advisor and approved by the DGS (see Section I, part G). Three or four (for four-member and five-member committees, respectively) of the members of this committee, but not including the major professor, are designated "official readers" and this should be indicated at the time that the advisory committee is formed and approved. Their job is to read the dissertation thoroughly and either approve or disapprove it. Only official readers can be voting members of the advisory committee.

When the dissertation is finished and has been approved by the advisor, it should be circulated to the official readers by the graduate student, and submitted to the Graduate School for the formatting check. Appropriate reader approval forms (APPENDIX 1: Reader's Report on Doctoral Dissertation) obtained from the departmental Graduate Administrative Assistant should be given to the official readers when the dissertation is circulated. It is normal procedure to allow the readers a minimum of two weeks to read the dissertation. If a reader

approves the dissertation he/she signs the approval form and returns it to the departmental Graduate Administrative Assistant. The Graduate School requires an additional 2-day work period to schedule the oral defense of the dissertation following approval by the advisory committee. Therefore, the necessary period from the time of thesis submission to the advisory committee to the dissertation defense is a minimum of 2 weeks and 2 days.

It should be understood that a reader can approve the dissertation as presented, or disapprove it and require that changes be made before approval is granted. If changes are required, they should be discussed with the student and/or the research advisor, and/or the other members of the advisory committee. All changes should be made before approval is granted. Changes may relate to the form or content of the dissertation per se, or they may be a requirement for additional experimentation. In any event, approval cannot be granted until these changes are made to the satisfaction of the reader(s) involved. Remember, approval of a dissertation by a reader implies that the dissertation with regard to content is in essentially its final form as far as he/she is concerned. After unanimous approval of the dissertation by the readers the candidate presents himself/herself for the final oral examination on his/her field of research (the “defense of dissertation”).

iii. Scheduling the Oral Defense

After all of the reader approval forms have been returned, the student should contact the departmental Graduate Administrative Assistant to arrange the formal scheduling the defense with the Graduate School (APPENDIX 1: Reporting Form for Results of Oral Candidacy Exams (MS and PhD) and Dissertation Defenses (PhD) with scheduling information filled in but unsigned by the committee). An official notification from the Graduate Administrative Assistant will soon follow, informing everyone of the proper time of the defense.

iv. . Defense of Dissertation

The Defense of Dissertation consists of two parts. The first is a 50-minute seminar presentation of the dissertation research that is given to the student's advisory committee and is open to the public. The second part is a closed oral examination following the seminar that is open only to the advisory committee. Formal public notice of the seminar must be arranged by the student or major advisor through the Department Office. It is the major advisor's responsibility to introduce the student. At the end of the seminar, any member of the audience may ask questions. Following a brief question/answer period, the advisory committee and the student will proceed to the closed session. At this time, the advisory committee will question the student on the dissertation. After all questions have been asked, the committee members will vote to PASS or FAIL. Approval of at least three of the four or four of the five voting committee members (i.e., advisor plus official readers) constitutes successful completion of the dissertation defense. It is expected that all committee members be

physically present during the defense, both the public presentation and closed oral examinations. However, if a committee member cannot be present, it is allowed for that person to attend the defense and examinations via remote (SKYPE, telephone/video conference, etc.). Only one member of a committee can be a remote participant. In the event that one committee member is absent and cannot attend remotely, the vote to pass must be unanimous.

The committee is responsible to see that the examination is conducted in an orderly fashion over a period of not less than one hour. The subject matter of this examination is the dissertation and the general field in which the dissertation falls.

Since the dissertation has already been approved in the context mentioned above, the student is being tested only for his or her ability to defend the dissertation in the context of their field. Thus, it is possible for a student to fail the defense even though the dissertation has been approved. In the event of failure, the committee will make its recommendations to the Director of Graduate Studies and the Chairperson of the Department. Even after successful defense of the dissertation, some changes in both the form and content of the dissertation may also be suggested to the student by his or her advisor and advisory committee at this time. Any recommended changes to the dissertation will need to be fulfilled before the final dissertation is submitted to the Graduate School. **The student's advisor shall inform the Director of Graduate Studies, the Graduate School and the Chairperson of the Department of Biological Sciences of the outcome as soon as possible following the defense by submitting the appropriate forms** (APPENDIX 1: Reporting Form for Results of Oral Candidacy Exams (MS and PhD) and Dissertation Defenses (PhD) (completed and signed by examining committee)).

v. Final Submission of the Dissertation to the Graduate School:

To receive the degree at the next commencement, the doctoral student who has successfully defended his or her dissertation must submit their completed and approved dissertation to the Graduate School by the date specified in the Graduate School Calendar. The dissertation must be in compliance with the requirements set by the Graduate School or the dissertation may not be accepted (<http://graduateschool.nd.edu/resources-for-current-students/dt/>).

c. Degree Eligibility:

The student must fulfill all doctoral requirements, including the dissertation and its defense, within eight (8) years from the time of matriculation. Failure to complete any of the Graduate School or departmental requirements within the prescribed period results in forfeiture of degree eligibility.

C) DEPARTMENTAL SEMINARS

The Department sponsors seminars for the benefit of all members of the Department. All graduate students are required to attend these seminars and sign in, since they constitute a vital part of their educational experience. Students must notify the DGS if a conflict arises.

D) ANNUAL REVIEWS

The Graduate Student Annual Review (GSAR) is required for all graduate students, during every year of their program. Its goal is to ensure students stay on track with the requirements of the Biology program and professional development as they progress through graduate school. The GSAR has two steps; in the first step students fill out a form and in the second step students hold a meeting to discuss the content of the form with their advisory committees. Complete instructions and the format are in APPENDIX 7. The GSAR form (step 1) must be filed with the Graduate Administrative Assistant by January 5 of each year. Step 2 (the committee meeting) must be completed and the meeting summary filed with the Graduate Administrative Assistant by June 1 of each year.

Annual committee meetings should include at least 3 of the 4 or 4 of the 5 members of the student's Advisory Committee. At least one must be the Major Advisor. The annual meeting of the committee will have several functions. First, an annual meeting will keep committee members informed of research progress and changes in the research. It will also give members an opportunity to provide feedback and give advice. Problems perceived at these meetings should be resolved before the oral examination or the defense. Second, summaries from these meetings will be used by the DGS to monitor student progress.

For the annual meeting, each student must prepare and distribute the GSAR well in advance of the meeting. The GSAR should include the short written summary of research, specifically emphasizing accomplishments during the past year, deviations from the prior year's goals, and new goals/objectives for the upcoming year. In addition, the summary could also discuss any differences between the student's and major advisor's expectations of the research. In the event that a committee member is absent from the meeting, he/she must also receive the GSAR and must receive the signed summary of the meeting (see below).

During the 1.0-1.5 hour meeting, the student should briefly present the research progress summary and then the committee will discuss research progress and future goals with the student. Following the meeting, the major advisor in conjunction with the student must write a short summary of the proceedings of the meeting and circulate this to the committee for comments. After circulation, the major advisor and student will revise as needed, sign the summary to verify that it is an accurate description of the proceedings of the meeting, and submit the summary to the Graduate Administrative Assistant for inclusion in the student's file. Committee members can add information or provide a different impression of the meeting with an additional written summary if desired. Any additional report will also be included in the student's file.

For most students, the annual meetings will be primarily informative for committee members and only minor adjustments of research goals would result. However, the assumption is that if committee members are significantly concerned about a particular aspect of the student's research, a discussion will ensue between the student, major advisor, and

committee to resolve the issue. This should occur at the time of the meeting and will be included in the account of the meeting.

Given the uncertain nature of biological experimentation, it is recognized that research goals and objectives must be somewhat flexible. For the same reason, it is also recognized that all proposed research objectives may not be accomplished. However, students that do not appear to be making satisfactory progress in their research, as determined by the major advisor and committee at the time of the annual meeting, will be asked to provide a set of specific objectives/goals that must be approved by the committee and be completed in a time period specified by the committee. In this case, it is recognized that an additional meeting (soon after the annual meeting) may be necessary for the student to properly formulate and obtain approval for these objectives. If the objectives are not completed during the specified time, the student may be asked to leave the graduate program. In this case, a decision to terminate a graduate student would be made by the DGS after consultation with student, major advisor, and committee.

Students that successfully defend their theses/dissertations or successfully pass their oral exam during the spring term are not required to have a separate committee meeting, but the GSAR form is still required.

SECTION III: FINANCIAL SUPPORT

Full-time, PhD degree-seeking graduate students in good academic standing may be eligible for financial support supplied by the University in the form of Graduate (Teaching) Assistantships, Tuition Scholarships, and Graduate Fellowships. In addition, Research Assistantships may also be available through individual professors or training grant programs. University support is defined as Graduate Assistantships, departmental fellowships, and special University fellowships, such as Schmitt and Luce, administered by the University. Research Assistantships are *not* considered as University support.

Ph.D. graduate students can expect five years of support in one form or another assuming all Departmental and University requirements are met. Ph.D. graduate students are also eligible for a sixth year of support with the implicit approval of their major advisor and DGS. Students are not eligible for University support beyond their sixth year, but may be supported on Research Assistantships provided by their advisors.

M.S. students are generally supported in the form of Research Assistantships provided by their major advisors for a period of two years, which can be extended to three years with approval by the major advisor and DGS.

A) Graduate (Teaching) Assistant

Graduate students may be appointed to assist in the teaching laboratories or large lecture courses of the Department of Biological Sciences by the Director of Graduate Studies of the Department. Their duties will vary with the courses to which they are assigned, but will not normally exceed 20 hours per week on average, including contact and preparation time. This activity is looked upon as an essential part of the student's training, and every doctoral student must serve at least one year (2 semesters) as a graduate teaching assistant. This may be accomplished on a volunteer basis or through a regular appointment. A Teaching Assistant (TA) is expected to be prepared for the activities of the day and to cooperate with the faculty member in charge to insure excellent opportunities for learning by the students in the course. Performance as a TA will be monitored each semester through the completion of a TA evaluation form by the professor responsible for the course. These forms (APPENDIX 1: Teaching Assistant Performance Evaluation) will be distributed to professors and, upon completion, will be entered into the student's file. Unsatisfactory ratings for TA performance will be evaluated in a manner similar to the evaluation of grade deficiencies. The DGS will review the completed forms each semester. If a student receives an unsatisfactory evaluation, the Director will discuss the situation directly with him/her. If the student would like to respond to the evaluation they can do so in writing and this will also be included in their file. They will subsequently receive a warning letter from the DGS indicating that if they receive a second unsatisfactory rating their situation will be brought before the GSAC. At that time, the Committee will look at the past evaluations and consult with the student, the professors issuing unsatisfactory evaluations, and the major advisor. The Committee will then decide whether the student should continue to receive TA support.

According to the regulations of the Graduate School, graduate assistants and research assistants are restricted to a maximum registration of 9 credit hours per semester and one “free” audit (maximum of 3 credits).

A graduate student accepting a graduate assistant stipend at the beginning of a semester is obligated to complete his or her duties for the whole semester. Students anticipating completing their degree and leaving the University during a semester should not seek or accept an appointment as a graduate assistant for that semester.

B) Research Assistant

A Research Assistant (RA) is a graduate student who works on thesis or other research. Support comes from government, industrial, or private grant funds. Appointments are generally made on a semester-by-semester basis. An RA is appointed by the Director of Graduate Studies at the request of the Principal Investigator for the sponsored research account (usually of the Research Advisor).

C) Research Fellow

A Research Fellow is a graduate student working on thesis research under a faculty research advisor and supported on fellowship money that is either internal to the University or external. A Fellow normally is appointed for 12 months (academic year and summer) but may be less (e.g., semester). According to the regulations of the Graduate School, research fellows are restricted to a maximum registration of 12 credit hours per semester and one “free” audit (maximum of 3 credits).

Select fellowships available through the Graduate School and College of Science to incoming graduate students are described on the Graduate School website (<http://graduateschool.nd.edu/admissions/financial-support/prestigious-fellowships/>).

Additional internal and external fellowships that have been garnered by graduate students in our department are described on our departmental graduate studies website (<http://biology.nd.edu/graduate/financial-assistance/>).

D) University and Departmental Graduate Support for Research and Travel

Limited Departmental funds to help students with their thesis research may be available on a competitive basis. These funds can be used for supplies, equipment, and necessary travel to meetings, other laboratories or field sites. Please refer to the Department of Biological Sciences Graduate Studies website for more information on these funding opportunities (<http://biology.nd.edu/graduate/financial-assistance/>).

SECTION IV: OTHER DEPARTMENTAL MATTERS

A) Facilities

Students may use departmental facilities such as computing facilities, greenhouses, radiation sources, printers, copy machines, etc., for legitimate reasons. However, the student is responsible for first contacting the faculty member in charge for clearance to use a particular facility. The student must also assist in maintaining security, safety, order and cleanliness in each facility. Special authorization and training must be obtained before any graduate student can use the Freimann Life Science Center (FLSC) and specifically for working with vertebrate animals. Contact the FLSC for information about vertebrate animal care and handling.

B) Keys

All keys which students are authorized to possess may be obtained from the Biological Sciences Office (Room 100) with the written request of his/her faculty advisor. A one-time deposit of \$20.00 is required from the student. Keys must be returned when they are no longer needed, at which time deposits will be refunded.

C) Stipends

Graduate and Research Assistants and Research Fellows are paid twice monthly, on the 15th and on the last day of the month. Direct deposit into a bank account of your choice is mandatory. Deposit statements can be viewed online via InsideND under the "My Resources" tab. Students are not supported by the Department during the summer. They should consult with their research advisors to determine if summer stipend money is available through extramural grants.

D) Travel

Any graduate student that will be traveling away from the University on University-related business (e.g., laboratory field trips, collecting trips, attending scientific meetings) must complete and submit a travel form available on-line (<http://biology.nd.edu/about/internal-forms/travel-form/>) at least 3 days prior to the trip. If you are being reimbursed for travel expenses, you must save all receipts and submit them with a travel expense report within two weeks of your return.

E) On-campus Parking

Parking stickers for student lots are available at registration or from campus security. If there is need for temporary use of a vehicle on the campus, the Director of Graduate Studies will make suitable arrangements when supplied with appropriate information by the student's advisor. Students and staff may park in the Galvin Life Science lot on weekends, holidays, and after 5 pm on weekdays, but only in designated parking spaces (i.e. not in the fire lane).

F) Requisitions

Students are not authorized to requisition items chargeable to any University account administered by the Department, be it from University or outside research funds. All needed

items must be requisitioned in writing by the appropriate faculty member. Any petty cash expenditures must be authorized beforehand by a faculty member.

G) Department Stockroom

The Department maintains a stockroom only for office and cleaning supplies. For routine laboratory supplies such as glassware, chemicals and plasticware, Biology faculty, students, and staff can purchase items from the Chemistry Stockroom housed in the Stepan Chemistry Hall or from the Jordan Hall of Science Stockroom. Graduate students can sign out materials from stockrooms in two ways. If the supplies will be paid for by grant-sponsored research then the student must give the Stockroom personnel the appropriate grant account number (issued by the major advisor) when the supplies are obtained. If the supplies are to be used for a teaching laboratory and paid for by the Department, then the student must first submit a requisition (that has been approved by the course professor) to the departmental accounting Administrative Assistant. The Administrative Assistant will, in turn, provide the student with a requisition that can be taken to the Stockroom to obtain the supplies.

The Department maintains common autoclaves and dishwashing equipment that are administered through the staff of the departmental stockroom located in the basement of the Galvin Life Sciences building. See the staff of that stockroom for details on autoclave and dishwasher usage.

H) Office Supplies

Office supplies required for the course in which you function as a graduate assistant may be requisitioned only through the faculty member in charge of the course. Office supplies are not issued to students for personal use nor is postage provided for any type of student communication.

I) Mail

All mail is distributed in the Graduate Student boxes on the first floor. Please do not use the Biological Sciences Department for non-scientific personal mail, incoming or outgoing.

J) Telephones

Telephone service is provided on a strictly business basis. No long-distance calls are allowed to be billed to the Department.

K) Addresses

It is important that the Department Office have a record of your current address and telephone number. Please insure that this information is provided to the Secretary and kept up to date.

L) Escort Service for Students

The University Security Department supplies escorts for students who must travel the campus at night called SafeBouND. Call University Extension 1-5555 to arrange a time and place, and a security officer will escort you to your destination on campus. This is a free service supplied by Security.

M) Communication

The Biological Sciences faculty wishes to enhance communication with all the students. Any and all members of the faculty may be approached informally in planning and developing your career and research plans.

Routine departmental announcements will appear on the Bulletin Boards (especially those near the Department Office), in student mailboxes, and via email. The Chairperson of the Department, the DGS, the Graduate Administrative Assistant, BGSO, and the GSAC are frequent channels for communications on department policy for graduate students.

SECTION V - APPENDICES

APPENDIX 1: FORMS FOR MS AND PHD (DEPARTMENT AND UNIVERSITY REQUIREMENTS)

Request for Approval of Graduate Committee Members (MS and PhD)

Transfer of Credits (MS and PhD)

Reporting Form for Results of Oral Candidacy Exams (MS/PhD) and Dissertation Defenses (PhD)
used both for scheduling (unsigned) as well as reporting on exams (completed and signed)

Departmental Verification of Graduate Examinations (MS and PhD)

Request for Approval of Tentative Thesis/Dissertation Title (MS and PhD)

Reader's Report on Master's Thesis (MS only)

Reader's Report on the Doctoral Dissertation (PhD only)

Application for Admission to Master's Degree Candidacy (MS only)
used both for scheduling (unsigned) and well as reporting on thesis defense (signed)

Application for Admission to Doctoral Degree Candidacy (PhD only)

Report of Annual Meeting with Advisory Committee (MS and PhD)

Teaching Assistant Performance Evaluation (MS and PhD)

APPENDIX 2: DEPARTMENT BIOLOGICAL SCIENCES GRADUATE PROGRAM ACADEMIC INTEGRITY AND APPEALS PROCEDURES

These procedures apply specifically to two situations. The first is department-level investigations of accusations of violation of academic integrity standards. The second is department-level hearings of student appeals related to academic performance standards. Both can be two-step processes: a local process through the department (as described here) and a final appeal to the Graduate School. If the student does not agree with the department's decision, she or he may appeal to the Dean of the Graduate School, who makes the final determination. The Graduate School's procedures can be found at: <http://graduateschool.nd.edu>.

Issues involving personal misconduct are handled by Student Affairs. For issues involving sexual or discriminatory harassment or disability-related grievances, please consult *du Lac: A Guide to Student Life* at <http://studenthandbook.nd.edu/>.

Violations of Academic Integrity Standards

A commitment to the highest standards of academic integrity is expected in all academic endeavors. Mentors and academic leaders have a responsibility to emphasize this to students, research assistants, associates and colleagues. Graduate students have a responsibility to inform themselves of the meaning of academic integrity in their discipline and to seek clarification from mentors if in doubt on specific issues.

Academic integrity is required in every aspect of graduate work, for the entire time a student is enrolled in the graduate program. As violations of academic integrity can result in dismissal from the graduate program, issues involving academic integrity must be addressed in an equitable process.

Violations of academic integrity may occur in classroom work and related academic functions or in research or scholarship endeavors.

- Violation of academic integrity in the classroom may result when a student's submitted work, graded or ungraded -- examinations, draft copies, papers, homework assignments, extra credit work, etc. -- is not his or her own. All work submitted for a course or similar academic endeavor is expected to be the student's own work, unless otherwise understood and approved by the instructor. Students may not, without proper citation, submit work that has been copied, wholly or partially, from another student's paper, notebook, or exam. Nor may students without proper citation submit work which has been copied, wholly or partially, from a book, article, essay, newspaper, the Internet or any other written or other media source whether or not the material in

question is copyrighted. Work that paraphrases any written or other media material without acknowledgment may not be submitted. Ideas from books and essays may be incorporated in students' work as starting points, governing issues, illustrations, and the like, but in each case the source must be cited. A student may not turn in the same work for two or more different courses unless each professor involved has authorized students to do so. Students must be aware that violations are not limited to the actions prohibited in the guidelines above. Other examples of academic dishonesty, apart from giving or receiving unauthorized aid, include but are not limited to listing false reasons for taking a make-up examination and falsifying data.

- Violation of academic integrity in research/scholarship includes, but is not limited to deliberate fabrication, falsification or plagiarism in proposing, performing or reporting research or other deliberate misrepresentation in proposing, conducting, reporting or reviewing research. Violation of academic integrity includes practices that materially and adversely affect the integrity of scholarship and research. Violation of academic integrity does not include errors of judgment, errors in recording, errors in the selection of data, errors in the analysis of data, differences in opinions involving interpretation, or conduct unrelated to the research process.

Department Investigation of Accusation of Violations of Academic Integrity Standards

Any person who has reason to believe that a violation of this policy has occurred shall discuss it on a confidential basis with the chair of the departmental Graduate Student Relations Committee. The committee chair shall evaluate the allegation promptly. If the committee chair determines that there is no substantial basis for the charge, then the matter may be dismissed with the fact of dismissal being made known to the complainant and to the accused, if he or she is aware of the accusation. If a perceived conflict of interest exists between this committee chair and the accused, the department chair (or his/her designee) shall serve in this role instead.

Otherwise, the committee chair will select an impartial panel consisting of three members, at least two of whom are faculty members, and one of whom may be a graduate student, to investigate the matter. The chair will inform the accused of the charges. The panel will determine initially whether to proceed directly to a hearing to further investigate the case, or to dismiss the charges. If the panel decides to proceed directly to a hearing, the hearing will be held within 10 business days of the original notification (during normal university operations). If the panel decides that further investigation is necessary, it shall immediately notify the committee chair, in writing. If the panel decides that a hearing is not warranted, any information gathered for this investigation will be destroyed by panel members. The panel will take the utmost care to minimize any negative consequence to the accused.

The accused party will be given the opportunity to respond to all allegations and provide supporting evidence at the hearing. This response will be made to the appointed panel. The student may bring Notre Dame community members for support or to serve as witnesses. For example, a student might bring a fellow student or faculty member. The student may not bring parents or legal counsel. The panel will make a final judgment, recommend appropriate disciplinary action if any, and report to the committee chair in writing. The report will include all of the pertinent documentation and will be presented within 30 business days (during normal university operations) after meeting with the accused. Copies of the report are to be made available to the accused, the committee chair and the Associate Dean of Students in the Graduate School. If a violation is judged to have occurred, this violation may be grounds for dismissal from the University.

In the case where a panel member cannot complete the process, the chair will designate a replacement and notify the other panel members of this designation. All deadlines may be extended in extenuating circumstances. A written and dated summary of charges, findings and actions shall be forwarded to the Associate Dean of Students in the Graduate School, as a matter of documentation.

If the student does not agree with the department's decision, she or he may appeal to the Dean of the Graduate School, who makes the final determination. The Graduate School's procedures can be found at: <http://graduateschool.nd.edu>.

Substandard Academic Performance

Graduate students who are enrolled and making satisfactory progress in their program of study are considered to be in good standing. Substandard or unacceptable academic performance may result in a warning letter, movement to probationary status, or dismissal from the program. Immediate dismissal may result from extreme under-performance, inability to secure a laboratory or adviser, or when the continued enrollment of the student constitutes a threat to the health and/or safety of the university community. Details on academic performance standards can be found in the Guide for Graduate Studies in the Department of Biological Sciences (<https://biology.nd.edu/graduate/graduate-requirements/>), the Graduate School's Bulletin of Information and the Academic Code of the Graduate School (<http://graduateschool.nd.edu/about-the-graduate-school/print-materials/>). It is the student's responsibility to inform him or herself about the standards for performance.

Notification of substandard academic performance will be communicated to the student in writing by the Director of Graduate Studies (DGS). The steps necessary to correct the situation, if these exist, and the consequences of continued substandard performance will also be communicated in writing. If the student's adviser is the DGS, then the letter will be initiated by

the department chair. A copy of this correspondence shall be sent to the Associate Dean of Students in the Graduate School.

A student may appeal the decision to dismiss from the program, placement on probationary status, provisions of any warning letters, denial of readmission to the same program (if the student was previously in good standing), and other program decisions that terminate or impede progress toward the degree.

Department Appeal Process for a Decision on the Consequences of Substandard Academic Performance

Student appeals must be initiated by a written statement from the student to the chair of the departmental Graduate Student Relations Committee within 10 business days (during normal university operations) from the time when the student is informed of substandard academic performance. The student's statement should indicate details on the nature of the problem, the date(s) the problem occurred, the grounds upon which the appeal is based, background information that the student considers important and the relief requested. If a perceived conflict of interest exists between this committee chair and the student, the department chair (or his/her designee) shall serve in this role instead.

The committee chair will select an impartial panel consisting of three members, at least two of whom are faculty members and one of whom may be a graduate student, to consider the appeal. The panel will promptly and thoroughly investigate the appeal to determine whether the relief requested is warranted. At the student's request or by request of the panel, the panel will meet with the student. The student may bring Notre Dame community members for support or to serve as witnesses. (For example, a student might bring a fellow student or faculty member. The student may not bring parents or legal counsel.) The investigation may include interviews and/or written statements from any other students, faculty or staff members who may be able to provide pertinent information about the facts, as well as a review of any pertinent documents.

The panel will complete the investigation, recommend appropriate relief if any, and report to the committee chair in writing within 30 business days (during normal university operations) of the written appeal from the student. The committee chair will notify the student in writing of the decision within 2 business days (during normal university operations).

In the case where a panel member cannot complete the process, the chair will designate a replacement and notify the other panel members of this designation. All deadlines may be extended in extenuating circumstances. A written and dated summary of the complaint, findings and actions shall be forwarded to the Associate Dean of Students in the Graduate School, as a matter of documentation.

If the student does not agree with the department's decision, she or he may appeal to the Dean of the Graduate School, who makes the final determination. The Graduate School's procedures can be found at: <http://graduateschool.nd.edu>.

**APPENDIX 3: MILEPOSTS IN GRADUATE EDUCATION
IN BIOLOGICAL SCIENCES: MASTERS DEGREE**

YEAR 1

- Semester 1. Permanent Advisor assigned; coursework, rotations, etc.
- Semester 2. Advisory Committee selected
Annual Progress Evaluated by Committee

YEAR 2

- Semester 1. Oral Comprehensive Examination
Approval of Thesis Title
- Semester 2. Research
Annual Progress Evaluated by Committee

YEAR 3

- Semester 1. Writing
- Semester 2. Reader's Approval of Written Thesis
Oral Defense of Thesis
Advancement to Candidacy

◆ Each calendar year an Annual Review Report and Advisory Committee meeting are required.

Appendix 4: GRADUATE PROGRAM REQUIREMENTS FOR MS STUDENTS ENTERING Fall 2014

| MS REQUIREMENTS (starting 2014) | | | | | | | |
|---------------------------------|--|--|--|--|--|--|--|
| Choose Advisor | Before or during the first week of courses | Most MS students choose an advisor prior to residence at Notre Dame. This faculty member will serve as the curriculum advisor for the student. | | | | | |
| Form Advisory Committee | End of the 2nd semester of the 1st year of residence. | The Advisory Committee will help advise the student in academic and research issues and will conduct the appropriate examinations throughout the student's graduate career. The student is required to meet with their Advisory Committee each year. | | | | | |
| Total Credits | 30 | | | | | | |
| Formal Course Credits | 15 | | | | | | |
| Seminar Credits | 1 per year (included in above) | Each student must give a public oral presentation of their research each year to a broad scientific audience by registering for one the formal graduate seminar courses designed for this purpose. | | | | | |
| Research Credits | Generally 15 | | | | | | |
| Specific Curriculum Areas | Foundational Discipline Knowledge | Student must demonstrate adequate foundational knowledge of discipline. Interim Committee and/or major advisor may require student to complete one or more foundational knowledge courses. | | | | | |
| | (minimum of 2 courses) Advanced Discipline Knowledge | Student must demonstrate adequate advanced knowledge of discipline. The majority of formal courses will be taken in this area. Specific course requirements will be set by the Advisory Committee. | | | | | |
| | Professional Skills | Student must demonstrate proficiency in proposal development, manuscript preparation, experimental design, and oral presentation. These skills can be acquired through formal course instruction, workshops, or informal instruction by graduate mentor. Proficiency will be determined by the Advisory Committee. | | | | | |
| | (minimum 1 course) Research Tools | Student must demonstrate proficiency of specific research tools as indicated by the Interim and/or Advisory Committees. At least 3 credit hours of formal coursework is required under this category. Other skills can be acquired through formal course instruction, workshops, or informal instruction by graduate mentor. | | | | | |
| | Trans/Interdisciplinary Thinking | Student must engage in some form of trans or interdisciplinary thinking. This skill can be acquired through formal course instruction, workshops, or enrollment in an interdisciplinary seminar course. Fulfillment of the requirement will be determined by the Advisory Committee. | | | | | |
| Ethics | 1 course | Student must complete one formal course or workshop in Ethics training. This requirement may or may not count towards the credit hour requirements depending on the course/workshop that is completed. | | | | | |
| Registration | Full-time minimally for one semester during the academic year or for one summer session. | | | | | | |
| Oral Candidacy Exam | Should be taken by the end of the 1st semester in the 2nd year of residency. | The proposal rigor and format should meet the requirements set by the advisor and advisory committee, typically in the format of a NSF Doctoral Dissertation Improvement Grant in the Directorate for Biological Sciences or in the format of a NIH Ruth L. Kirschstein National Research Service Award (NRSA). | | | | | |

APPENDIX 5: MILEPOSTS IN GRADUATE EDUCATION IN BIOLOGICAL SCIENCES: DOCTORAL DEGREE

YEAR 1

- Semester 1. Interim Advisor assigned; coursework, rotations, etc.
- Semester 2. Coursework, rotations, etc., continued
Permanent Advisor selected

YEAR 2

- Semester 1. Advisory Committee formed
Coursework
- Semester 2. Written Comprehensive Examination
Annual Progress Evaluated by Committee

YEAR 3

- Semester 1. Oral Comprehensive Examination
Advancement to Candidacy
- Semester 2. Research
Annual Progress Evaluated by Committee

YEAR 4

- Semester 1. Research
- Semester 2. Annual Progress Evaluated by Committee

YEAR 5

- Semester 1. Writing
Approval of Dissertation Title
- Semester 2. Reader's Approval of Written Dissertation
Oral Defense of Dissertation and Submission

◆ Each calendar year an Annual Review Report and Advisory Committee meeting are required.

Appendix 6: GRADUATE PROGRAM REQUIREMENTS FOR PhD STUDENTS ENTERING Fall 2012

| PhD REQUIREMENTS (starting 2012) | | | | | | |
|----------------------------------|--|--|--|--|--|--|
| Form Interim Committee | Before or during the first week of courses | If the student chooses an advisor prior to residence at Notre Dame, this faculty member will serve as the curriculum advisor for the student. If the student is rotating, the first rotation faculty member will serve as the Interim Advisor and an Interim Committee will be formed to advise the student, consisting of the subsequent rotation faculty members. This committee will evaluate the student and make curriculum recommendations. The student will meet with the Interim Committee at the beginning of each year until the Advisory Committee is formed. The members of the Interim Committee may, but are not required, to serve on the Advisory Committee. | | | | |
| Choose Advisor | No later than the end of the second semester of 1st year. | | | | | |
| Form Advisory Committee | End of the 1st semester of the 2nd year of residence. | The Advisory Committee will assume the role of the Interim Committee and the Interim Committee will be disbanded at this time. The Advisory Committee may include members from the Interim Committee, but this membership is not necessary. The Student is required to meet with their Advisory Committee each year as is currently required. | | | | |
| Total Credits | 60 | | | | | |
| Formal Course Credits | 24 | | | | | |
| Seminar Credits | 3 (included in above) | | | | | |
| Research Credits | Generally 36 | | | | | |
| Specific Curriculum Areas | Foundational Discipline Knowledge | Student must demonstrate adequate foundational knowledge of discipline. Interim Committee and/or major advisor may require student to complete one or more foundational knowledge courses. | | | | |
| | (minimum of 3 courses) Advanced Discipline Knowledge | Student must demonstrate adequate advanced knowledge of discipline. The majority of formal courses will be taken in this area. Specific course requirements will be set by the Interim and/or Advisory Committees. | | | | |
| | Professional Skills | Student must demonstrate proficiency in proposal development, manuscript preparation, experimental design, and oral presentation. These skills can be acquired through formal course instruction, workshops, or informal instruction by graduate mentor. Proficiency will be determined by the Advisory Committee. Prior to the Dissertation Defense the student must have one paper submitted to a peer-reviewed journal, preferably 1st author. | | | | |
| | (minimum 1 course) Research Tools | Student must demonstrate proficiency of specific research tools as indicated by the Interim and/or Advisory Committees. At least 3 credit hours of formal coursework is required under this category. Other skills can be acquired through formal course instruction, workshops, or informal instruction by graduate mentor. | | | | |
| | Trans/Interdisciplinary Thinking | Student must engage in some form of trans or interdisciplinary thinking. This skill can be acquired through formal course instruction, workshops, or enrollment in an interdisciplinary seminar course. Fulfillment of the requirement will be determined by the Advisory Committee. | | | | |
| Ethics | 1 course | Student must complete one formal course or workshop in Ethics training. This requirement may or may not count towards the credit hour requirements depending on the course/workshop that is completed. | | | | |
| Professional Development | Oral Research Presentation | Each student must give a public oral presentation of their research each year to a broad scientific audience. This requirement may be fulfilled by participation in a formal seminar course or by attendance and presentation at a regional, national, or international conference. Presentation must be documented by instructor or mentor. Presentation in laboratory meetings or the oral candidacy defense will not fulfill this requirement. | | | | |
| Registration | Full-time for 4 consecutive semesters | | | | | |
| Written Candidacy Exam | Must be taken the end of 2nd year | | | | | |
| Oral Candidacy Exam | Should be taken within 6 months of written Exam and no later than the end of the 3rd year. | The proposal rigor and format should meet the requirements set by the advisor and advisory committee, typically in the format of a NSF Doctoral Dissertation Improvement Grant in the Directorate for Biological Sciences or in the format of a NIH Ruth L. Kirschstein National Research Service Award (NRSA). | | | | |

APPENDIX 7: GRADUATE STUDENT ANNUAL REVIEW (GSAR)

WHAT IS THE GRADUATE STUDENT ANNUAL REVIEW (GSAR)?

The GSAR is an annual process that will help you track your professional development as you progress through graduate school. The GSAR has two steps: the first step is to complete a form and the second step is to hold a meeting to discuss the content of your form.

WHY AM I BEING ASKED TO PARTICIPATE IN THE GSAR?

The GSAR is designed to help your professional development in three primary ways. First, completing the attached GSAR questions will help you assess your progress towards your career objectives. Second, your responses will help in keeping your curriculum vita up to date and will provide your mentors with information to write letters of recommendation. Third, the meeting to discuss your answers to the GSAR questions will help you and your mentors evaluate your accomplishments and your educational and professional needs.

HOW WILL THE INFORMATION IN THE GSAR BE USED?

The information in the GSAR will be used in two main ways. First, you, your advisor, and your committee will use the information to track your accomplishments as you proceed through graduate school. Second, the DGS may summarize information compiled across all GSAR forms to report to the College of Science or the University on the general progress of Biological Science's graduate students.

INSTRUCTIONS

You are required to complete a GSAR every year you are enrolled in graduate school. To complete the GSAR, follow the steps below:

Step one – Due by January 15th of each year:

1. Answer questions 1 through 11 on the following page.
2. Answer each question for the calendar year just completed. (e.g., for question 2, list meetings in which you presented during the previous calendar year, not meetings you plan to attend next year).
3. We do not expect you to have an activity or item to fill in for every question. The questions are designed to be a comprehensive list of all the professional activities you might accomplish in any given year. However, do not leave any question blank. If you have nothing to report for a given question, write *None* or *Not Applicable*.
4. When you have completed the form, email it to the people described below:

- a. If you are in your first year, email the form to the Graduate Program Coordinator and your advisor. If you are rotating among labs, email the form to the Graduate Program Coordinator and the DGS. In this email, begin the process of scheduling a meeting to discuss your GSAR with either your current faculty advisor or the DGS.
 - b. If you are in your second year and beyond, email the form to the Graduate Program Coordinator, your advisor, , and every member of your committee. In this email, begin the process of scheduling a meeting to discuss your GSAR with your advisor and your committee.
5. Complete the Graduate School's *Funding Application Report*:
<http://graduateschool.nd.edu/forms/funding-application-report/>

Step two – Due by June 1 of every year:

1. Hold the meeting described in step 4 above.
2. The GSAR process will be complete when your advisor writes a summary of this meeting by completing the *Report of Annual Meeting with Advisory Committee* form. (Note: the *Learning and Knowledge Objectives Completed* section on Page 2 of the form only needs to be completed by students entering in the Fall 2012 term or after.) The summary form will be attached to your GSAR form.

INFORMATION TO INCLUDE:

YOUR NAME

[year of report] BIOLOGICAL SCIENCES
GRADUATE STUDENT ANNUAL REVIEW (GSAR)

Please answer the following questions about your professional activities during the CALENDAR year of [indicate year]. Attach an updated copy of your CV.

1. Publications appearing in press or submitted (authors, year, title, journal/book, volume, page numbers).
2. Presentations given (both external and internal; provide details of authors, title, venue, format and dates). Includes poster and oral presentations at meetings and seminars.
3. Grants or Fellowships applied for (agency, title, PI or co-PI, start and end dates requested, dollar amount requested and/or awarded). Indicate the status of the application at the end of 2015 (declined, pending, or awarded).
4. Courses taught during 2015 (course, term, number of students).
5. Courses taken during 2015 (both external and internal).

6. Research personnel (undergrads, summer assistants, high school students, etc.) supervised (name, period worked, source of support [# class credits or grant], involvement in grants, publications, or presentations).
7. Internal committee participation (University, departmental, etc.).
8. External scholarly activities (society committees, reviews, etc.).
9. Awards and distinctions (travel awards, paper awards, etc.).
10. Brief statement of research and scholarly progress (summary only; 1-2 single-spaced pages; may be narrative, outline, or bulleted list format).
11. Brief statement of goals for the next year and suggestions for how your committee and the department can help you meet those goals.

Please address suggested changes, in writing, to the Director of Graduate Studies.

