

IUPUI BIOLOGY DEPARTMENT
GRADUATE STUDENT HANDBOOK

WELCOME

I want to welcome you to the IUPUI Biology Department Graduate Program. The department offers thesis and non-thesis Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees from Purdue University. This handbook is designed to give an overview of the more important procedures, expectations, and responsibilities of graduate students in the Biology Department and covers topics such as course and academic performance requirements, required forms, deadlines for filing forms, financial aid, and important university contacts.

IUPUI is a mix of many schools that programmatically follow IU or Purdue guidelines. Your graduate program in the Biology Department of the Purdue University School of Science is constructed and administered according to the guidelines established by the Purdue University Graduate School and the Department of Biological Sciences in West Lafayette. Indiana University has the administrative and fiscal responsibilities for the IUPUI campus, and so will handle your academic records, fees, and compensation.

We have made every effort to insure the accuracy of the content of this handbook; however, programs and policies will change in response to a variety of factors. Please contact the Director of Graduate Programs or the Administrator for Graduate Programs in the Departmental office if you have questions regarding policies or procedures.

Best wishes for your graduate career in the Biology Department; we hope that we meet your expectations.

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Degree Programs

M.S. with Thesis:

This option requires a minimum of 9 credit hours of 500 to 600-level course work in biology (excluding 59500, 69600, and 69800), chosen in consultation with the student's Graduate Advisory Committee, 1 hour of Seminar (69600), and sufficient registration in Thesis Research (69800) to total 30 hours. Additional graduate or undergraduate level biology courses or courses from other departments may be required depending on the background of the student and the research area. Intensive research is conducted, leading to a thesis. Most full-time students should expect to spend 2 full years to complete this program.

M.S. Nonthesis:

This option is available to students whose career goals are best served by a program that exposes the individual to a broad range of biological topics and may include study in other science and non-science disciplines. The program is comprised of at least 21 credit hours of

course work (500-600 level) in biology (primary area) and, for students who wish to combine biology training with work in another area as a mechanism to meet career objectives, 9 credits in a secondary, supporting area. Examples of secondary areas would include, but not be limited to, chemistry, education, mathematics, public affairs, business, statistics, law, computer science, and health administration. For those students with no secondary area, standard Nonthesis, all 30 hours will be taken in biology. The program may require 2 credit hours of registration in Special Assignments (59500), involving an independent creative library project and 1 credit hour of registration in Seminar (69600), an oral presentation of the independent project. The Nonthesis options take more than two semesters to complete.

M.S. Preprofessional Nonthesis:

This program consists of a minimum of 30 credits that must be taken over two semesters. This challenging program is highly intensified and open only to those students who meet a high admission standard. This program is available to those students planning careers in medicine, dentistry, optometry, law, or other professional fields.

Transfer of Credit, English Proficiency

Transfer credit to be used in the Nonthesis option may be given for up to 9 credit hours of graduate work completed elsewhere with a grade of B or better, and used only in the secondary area. Up to 12 hours of biology graduate credit taken at IUPUI under graduate continuing non-degree status may be transferred to the thesis or Nonthesis options. Transfer credits will be accepted only after one semester of satisfactory work is completed in residence at IUPUI and also at the discretion of the student's Graduate Advisory Committee.

For students whose first language is not English, the application for admission to the university includes the Test of English as a Foreign Language (TOEFL). In addition, upon entering the university, international students take the English as a Second Language (ESL) screening test administered at IUPUI. Based on the results of that test, a student will be counseled into courses so that he or she will ultimately receive a B or better in ESL W131 to satisfy English proficiency. Teaching assistants whose first language is not English must have their spoken language proficiency verified with the SPEAK test, also administered by the ESL program, before the beginning of the semester in which they will teach. Information about the SPEAK test, including sample questions, can be obtained from the ESL office (CA243). Students who do not achieve the minimal SPEAK test scores (50 for classroom and laboratory instruction, 40 for duties involving direct student contact but not classroom or laboratory instruction) will be required to take the ITA training course (ENG G020) and then pass the SPEAK test before assuming TA duties.

Choosing a Major Professor and Graduate Advisory Committee

Thesis MS:

The major professor is the person who will serve as mentor during graduate training. He or she will be the research advisor or special project director, principal member of the Graduate

Advisory Committee (in the preparation of the Plan of Study), and chairperson of the Examining Committee (for the thesis defense), as well as advisor on many matters that may arise in classroom, teaching, and research situations.

Some students may be familiar with the faculty in the Biology Department and initiate a mutually acceptable arrangement with a major professor; other students will interview with members of the graduate faculty to make this selection as soon as possible before the beginning of the first semester. For additional information students are referred to the published list of Biology faculty research interests available in the Biology Office or on the Biology web page (<http://www.biology.iupui.edu>). Students can not be officially admitted into the Thesis MS program until a major professor has been identified and has indicated a willingness to accept the student.

Once a major professor has been selected, a Graduate Advisory Committee must be constituted. This committee is composed of the major professor as chairman and at least two other members of the Purdue University Graduate Faculty. An adjunct faculty member or a faculty member from another department may serve on this committee; however, a majority of the committee must be full-time, resident faculty from the Biology Department. The members of this committee should be chosen in consultation with the major professor, and service on the committee is subject to mutual agreement.

Non-thesis MS:

The major professor will be the Director of Graduate Programs with various faculty members assigned to non-thesis MS students unless other arrangements are made. Typically, faculty are placed on the Committee based on their expertise in areas germane to a student's professed career goals and/or primary coursework.

Creating a Plan of Study

Each student meets with his/her Graduate Advisory Committee to generate a Plan of Study, which will outline courses to be taken to fulfill the degree requirements. Ideally, the Plan of Study is created during the first or second semester, but it must be filed at least one semester before the semester in which the degree is expected.

For the M.S. Nonthesis degree, at least 30 hours of registration must appear. For the M.S. thesis degree, there must be at least 9 hours of coursework plus Seminar (69600). M.S. Thesis Research (69800) should not be listed on the Plan of Study. All minimum grade requirements must be noted. A computer generated or typed version of the Plan of Study form should be completed and appropriately signed, and then forwarded to the Director of Graduate Programs who will send it to the Purdue University Graduate School representative at IUPUI.

Occasionally there are situations that require an approved Plan of Study be changed. For example, a listed course may be cancelled or the instructor may be on leave during the expected semester of offering; a new, more appropriate course may become available; or the scheduling of the course may conflict with other required coursework or teaching assignments. Minor changes

such as course substitutions or change in Graduate Advisory Committee membership involve submission of a Change in Plan of Study form. If the changes are major, such as a new research direction requiring different course work, then a new Plan of Study form should be filed.

The following is an **example** of a four-semester sequence fulfilling the 30 credit hour requirements.

First Semester (Fall):

Molecular Biology, BIOL 50700 (3 cr)
Research M.S. Thesis, BIOL 69800 (3 cr)

Third Semester (Fall):

Sensory System, BIOL 69700 (3 cr)
Research M.S. Thesis, BIOL 69800 (3 cr)

Second Semester (Spring):

Immunology, BIOL 56100 (3 cr)
Research M.S. Thesis, BIOL 69800 (6 cr)

Fourth Semester (Spring):

Seminar, BIOL 69600 (1 cr)
Research M.S. Thesis (8 cr)

Declaring Candidacy

In the final semester of registration the degree candidate must register for Candidate (CAND 99100, 0 credits) in addition to the usual registration. This alerts the School of Science and the Graduate School to the anticipated graduation of the student. If for some reason the thesis is not completed in the semester when candidacy is declared, the student may register for only CAND 99100 in the following semester provided that the student was registered for at least 1 hour of research credit during the previous semester (summer excluded). The student must then meet the mid-semester deadline for passing the final examination and submitting the thesis. If the student does not meet the mid-semester deadline, registration for candidacy only will be automatically converted into 1 hour of research credit; the student can graduate that semester by fulfilling the later deadlines for the final exam and thesis deposit. If the later deadlines are not met, the student must *again register for candidacy* for the next semester.

Thesis

Writing and Formatting the Thesis:

The thesis is the culmination of several semesters of work; however, preparation for writing the thesis begins when the research begins. The student should be amassing pertinent literature, analyzing and interpreting data, and contemplating the significance of the research project throughout his/her graduate career in the Department. When ready to begin serious construction of the thesis, the student should consult style manuals (available electronically or in paper form from the IUPUI library), other well-written theses, and *A Manual for the Preparation of Graduate Theses* available at <http://www.purdue.edu/GradSchool/gradhome.htm>. Initial drafts of the thesis should be evaluated by the major professor and once an acceptable version is produced, copies are distributed to the Examining Committee (usually the same faculty as the Graduate Advisory Committee) at least 2 weeks before the scheduled defense date. The format of the thesis is given final approval when the thesis is deposited (by appointment) at the IUPUI Graduate School.

Defending the Thesis:

When an acceptable version of the thesis has been produced, the student should consult with his/her Examining Committee to establish a date for the thesis defense. There are two deadlines for the final exam/thesis defense, a mid-semester deadline when the student is registered for candidate only and a second deadline (first week in December, third week in April, and third week in July) for students whose registration includes research credits. The end-of-semester deadline for thesis deposit (see below) is different from the exam deadline. *Students are strongly urged to allow adequate time between their thesis defense dates and the deadline for final thesis submission to allow for revisions required by the Examining Committees.* A completed Request for Appointment of Examining Committee (Form 8) must be received in West Lafayette at least two weeks before the proposed thesis defense date, and therefore the student must inform the Director of Graduate Programs of the defense date *at least three weeks* in advance of that date. The Request for Appointment of Examining Committee contains the names of the Examining Committee, the title of the thesis presentation, and the day, hour and location of the seminar/defense. The thesis defense includes a public presentation (Seminar, BIOL 69600) of the thesis research followed by a thesis defense before the Examining Committee. Following the thesis defense, the Report of the Master's Final Examination form must be completed and submitted to the Director of Graduate Programs.

Final Thesis Submission:

Once the final version of the thesis is ready and before the deadline set for that semester, the student should call the Graduate School (274-1577) for an appointment to deposit the thesis. The student sends the thesis electronically to the I.U. Graduate School Office and is accompanied by the signed Thesis Acceptance Page. This Page is sent from the Graduate School at Purdue University, West Lafayette, to the Biology Department once the department submits the Request for Appointment of Examining Committee (see previous section). If the thesis is to be kept confidential (for one year), a completed form *Request for Confidentiality of Thesis* should be submitted along with the original thesis and departmental copies of the thesis.

The student should provide to the Biology Department chairperson two copies of a non-confidential thesis (one unbound copy of the thesis printed on 100% rag paper is archived in the University Library, and one copy bound in any fashion and printed on regular paper is retained in the department). The student should also provide a copy to the major professor and, by request, to committee members.

Final Examinations for M.S. Nonthesis Options

The Final Examination for the M.S. Nonthesis degree may be oral, written, or a conference of the Committee (Form 7). Request for Appointment of Examining Committee does not need to be submitted unless the Examining Committee is different from the Graduate Advisory Committee. Report of Master's Final Examination must be completed and submitted to the Graduate Program Director.

Summarized Sequence of Events

First Semester:

- Select Major Professor (may be done before semester begins)
- Fulfill Graduate English Proficiency (non-native speakers of English)
- File Plan of Study (PPNT students only)
- Course Work and Research

Second and Third Semesters:

- Course Work and Research
- Establish Graduate Advisory Committee
- File Plan of Study (thesis and standard non thesis second semester)
-

Fourth (Final) Semester:

- File for Candidacy
- Submit form GS 8 “Request for Appointment of Examining Committee” at least 3 weeks before thesis defense
- Copies of thesis to Examining Committee at least 2 weeks before thesis defense
- Submit Final Thesis by deadline (near end of semester)
- File GS 7 “Report of Master’s Examining Committee”
- Complete Form GR-79-A4 “Post M.S./Ph.D. Information”

See page 25 for a more complete list of forms.

DOCTOR OF PHILOSOPHY

Program Overview

Objective of Study for the Ph.D. Degree:

The degree of Doctor of Philosophy, the highest degree conferred by Purdue University, can be pursued in the Department of Biology at IUPUI. The doctoral degree is restricted to those scholars who have demonstrated superior ability in a recognized academic discipline. The Ph.D. degree is not awarded on the basis of time spent in residence or following the completion of any specific number of formal courses, nor is the degree granted on the basis of miscellaneous studies and research effort. The entire Ph.D. program must be rationally related, highly research-oriented, and culminate in a thesis of scholarly merit indicative of the candidate's ability to conduct original research in a recognized field of specialization. Ph.D. programs are directed by professors who work in close association with selected graduate students. In practice, doctoral programs are composed of formal courses, guided individual study in a chosen field or discipline, study on cognate subjects as may be required by the candidate's advisory committee, and original research that serves as the basis of a scholarly thesis.

Fields of Study:

Ph.D. degrees are offered in most of the fields available for the M.S. degree. For those students who rotate in several labs that student is counseled by the Departmental Graduate advisor until a thesis advisor has been designated.

Coursework:

Ninety credit hours of registration are required for the Ph.D. degree. There is no minimum number of course work hours required in the Ph.D. program although two separate registrations in Seminar (69600) are required unless equivalent presentation experiences can be documented. The seminar is an oral presentation on a topic unrelated to the student's thesis topic and is given publicly. However, it is strongly advised that students accumulate during the first two years of study at least 30 hours of registration, with 22 in standard course work credits. This permits those students who leave the program before completion to qualify for an M.S. Nonthesis degree. Plans of Study with less than this number of registration in course work will be approved only with special justification. Students register for research BIOL 69900.

Transfer of Credit, English Proficiency

Students who have registered for graduate coursework as graduate continuing non-degree students through the Indiana University Graduate School at IUPUI may use a maximum of 12 credits in their graduate program. At least one-third of the credits used for the Ph.D. must be earned on the campus granting the degree. Students entering the Ph.D. program with a master's degree from an accredited institution will have a maximum of 30 credits counted toward the 90 credit hours required for the Ph.D. Only grades of B or better will transfer. All transfer credits accepted are done so at the discretion of the student's graduate advisory committee and only after one semester of satisfactory work at IUPUI.

For students whose first language is not English, the application for admission to the university includes the Test of English as a Foreign Language (TOEFL). In addition, upon entering the university, international students take the English as a Second Language (ESL) screening test administered at IUPUI. Based on the results of that test, a student will be counseled into courses so that he or she will ultimately receive a B or better in ESL W131 to satisfy English proficiency. Teaching assistants whose first language is not English must have their spoken language proficiency verified with the SPEAK test, also administered by the ESL program. Information about the SPEAK test, including sample questions, can be obtained from the ESL office. Students who do not achieve the minimal SPEAK test scores (50 for classroom and laboratory instruction, 40 for duties involving direct student contact but not classroom or laboratory instruction) will be required to take the ITA training course (ENG G020) and then pass the SPEAK test before assuming TA duties.

Choosing a Major Professor and Graduate Advisory Committee, and Formulating a Plan of Study

The major professor is the person who will direct the student's thesis research and plays a principal role in determining the student's course of study. Student's can enter the Ph.D. program either having chosen a major professor or can choose to do a series of laboratory rotations in his/her first semester to become acquainted with various research possibilities.

The Graduate Advisory Committee/Examining Committee consists of:

- a faculty member of the Purdue University – West Lafayette Department of Biological Sciences, who will chair the Committee,
- the major professor,
- a person from another department (representing an outside area), and
- one or more additional members from the IUPUI Department of Biology (inclusion of this/these member(s) is highly recommended but not mandatory).

The Graduate Advisory Committee is constituted by mutual consent of the student, major professor, and committee members after the student has passed the Qualifying Examination. The student requests appointment of the advisory committee. The major professor initially recommends an acceptable student Plan of Study. The Plan of Study must be approved before the request for preliminary examination will be approved.

Examinations

Qualifying Examination:

After completion of most coursework, typically 3 weeks after the second semester of graduate study, the student must take and pass an examination in one of the following areas: biochemistry and molecular biology, cell and developmental biology, or immunobiology. The examinations are administered by the Qualifying Examination Committee through subcommittees specific for each area. Materials to aid students in studying for the qualifying examination are provided by the Qualifying Examination Committee at the start of the second semester of graduate study, thereby allowing a full semester's preparation for

the exam. The examination has two parts: a written comprehensive examination covering subjects presented in coursework or in assigned materials, and a library research paper. For the comprehensive examination, answers to 8-12 questions selected from the reading list are written on one day. The research paper is then composed on a topic selected from a second topics list, and submitted within 4 days of the comprehensive examination. The answers to comprehensive exam questions and the research paper are each graded by the Committee members submitting that question/topic; if a passing grade is not given, a second Committee member will read the answer/paper and an average of the two scores will be the final score. If there is not a favorable report on the qualifying examination, the student has one opportunity to retake the exam by submitting a new request (G.S. Form 8).

Preliminary Examination:

Within one year of passing the Qualifying Examination and within 6 months of establishing the Graduate Advisory Committee, the student files with the Director of Graduate Programs/graduate secretary the form Request for Ph.D. Advisory Committee and Plan of Study Approval to take the Preliminary Examination. This form is filed at least 3 weeks in advance of the examination, and includes the date, time, and location of the examination. This examination involves the construction by the student of a written document describing the proposed thesis research. The document should have a literature review of areas relevant to the project, and clearly state the objectives of the research and the plan for reaching these objectives. The approximate length should be 10-15 pages (double spaced), exclusive of tables, figures, and references, and include sections on background/significance, objectives, preliminary results (if any), and methods. The proposal should be distributed to the student's Graduate Advisory Committee/Examining Committee at least two weeks before the oral examination of the student by the Committee. The oral examination is both a defense of the proposal and a test of the student's understanding and knowledge of areas germane to the research area.

The results of the examining committee are reported to the Graduate School with an appropriate recommendation for the student's admission to candidacy, continued preparatory study, or discontinuation. If a student does not pass the preliminary examination, a second meeting must be convened within 6 months. Should the preliminary examinations be failed twice, the student may not be given a third examination, except upon the recommendation of the examining committee and with special approval of the Graduate Council. After admission to candidacy, the candidate must devote at least two semesters to research before the final examination (thesis defense). Research conferences are held with the Graduate Advisory Committee at least yearly and do not require notification except of the committee members; the form BIOL-GR-98 is used to report results of annual research conferences.

Declaring Candidacy

In the final semester of registration the degree candidate must register for Candidate (CAND 991, 0 credits) in addition to the usual registration. This alerts the School of Science and the Graduate School to the anticipated graduation of the student. If for some reason the thesis is not completed in the semester when candidacy is declared, the student may register for only

CAND 991 in the following semester provided that the student was registered for at least 1 hour of research credit during the previous semester (summer excluded). The student must then meet the mid-semester deadline for passing the final examination and submitting the thesis. If the student does not meet the mid-semester deadline, registration for candidacy only will be automatically converted into 1 hour of research credit; the student can graduate that semester by fulfilling the later deadlines for the final exam and thesis deposit. If the later deadlines are not met, the student must *again register for candidacy* for the next semester.

Thesis

Writing and Formatting the Thesis:

The research accomplished as part of the doctoral work is expected to make a significant contribution to the candidate's chosen field of knowledge – a contribution of sufficient importance to merit publication. The candidate must, therefore, prepare a thesis showing the results of his/her research. When ready to begin serious construction of the thesis, the student should consult style manuals (available electronically or in paper form from the IUPUI library), other well-written theses, and *A Manual for the Preparation of Graduate Theses* available from the Director of Graduate Programs or at <http://www.purdue.edu/GradSchool/gradhome.htm>. Initial drafts of the thesis should be evaluated by the major professor and once an acceptable version is produced, copies are distributed to the Examining Committee (usually the same faculty as the Graduate Advisory Committee) at least 2 weeks before the scheduled defense date.

Defending the Thesis:

After the research has been completed and the dissertation written, the candidate shall be given a final examination in which he or she defends the thesis and demonstrates to the Examining Committee that he or she has all of the capabilities for which the Doctor of Philosophy degree is awarded. The Examining Committee consists of no fewer than four members. There are two deadlines for the final exam/thesis defense, a mid-semester deadline when the student is registered for candidate only and a second deadline (first week in December, third week in April, and third week in July) for students whose registration includes research credits. The end-of-semester deadline for thesis deposit (see below) is different from the exam deadline. *Students are strongly urged to allow adequate time between their thesis defense dates and the deadline for final thesis submission to allow for revisions required by the Examining Committee.* A completed Request for Appointment of Examining Committee must be received in West Lafayette at least two weeks before the proposed thesis defense date, and therefore the student must inform the Director of Graduate Programs of the defense date *at least three weeks* in advance of that date. The Request for Appointment of Examining Committee contains the names of the Examining Committee, the title of the thesis presentation, and the day, hour and location of the seminar/defense. The thesis defense includes a public presentation (Seminar, BIOL 696) of the thesis research followed by a thesis defense before the Examining Committee. Following the thesis defense, the Report of the Final Examination (G.S. Form 11) form must be completed and submitted to the Graduate Program Director at West Lafayette. Not more than one dissenting vote is acceptable in certifying the candidate to receive the degree.

Final Thesis Submission:

Once the final version of the thesis is ready, the student should call the Graduate School (274-1577) for an appointment to deposit the thesis. The student takes the original copy of the thesis printed on 100% rag/cotton paper and bound in a three-hole screw post binder (available in the IUPUI Bookstore) to the I.U. Graduate School Office, located in the University Library. Bound in the thesis is the signed Thesis Acceptance Page. The thesis format is approved in the Graduate School at the time the thesis is deposited. The student also submits a second copy of the thesis on regular paper, one extra copy of the title page and abstract; and the microfilm agreement. The microfilming fee payment is sent directly by the student to the Purdue University Bursar (Hovde Hall #9, West Lafayette, IN 47906); the check should include the student's name, address, social security number, and the purpose of the check. The completed National Science Foundation Survey of Earned Doctorates (received by the student in a packet sent to the department after receipt of the Request for Appointment of Examining Committee) is also submitted in the Graduate School Office. If the thesis is to be kept confidential (for one year) the student submits to the Graduate School the completed form *Request for Confidentiality of Thesis* along with the original and all copies of the thesis.

The student should provide to the Biology Department Chairperson an unpunched, unbound copy of the non-confidential thesis on 100% cotton paper (for the library archives) and a bound (in any fashion) copy on regular paper (for the Department), as well as a copy to the major professor.

Theses can be professionally bound according to Purdue University specifications by the National Library Binding co. of Indiana located at 55 State Ave., Suite 100, Indianapolis 46201. Phone: 317-636-5606.

Summarized Sequence of Events

First Semester:

- ❑ Select Major Professor if rotating in several laboratories; some students will have identified a major professor prior to admission
- ❑ Coursework/Research

Second Semester:

- ❑ Coursework/Research
- ❑ Qualifying Examination (typically after the end of the semester)
- ❑ Establish Graduate Advisory Committee (within 6 months of passing qualifying exam)

Third Semester:

- ❑ File Plan of Study (as soon as possible after forming Graduate Advisory Committee)
- ❑ Coursework/Research

Fourth Semester:

- ❑ Preliminary Examination (file Form 8 “Request for Appointment of Examining Committee for Preliminary Examination” at least 3 weeks before examination)

Subsequent Semesters:

- ❑ Research
- ❑ At least 2 semesters must elapse between the Preliminary Examination and the Final Examination

Final Semester:

- ❑ File for Candidacy
- ❑ Submit Form 8 “Request for Appointment of Examining Committee at least 3 weeks before thesis defense
- ❑ Thesis Defense/Final Exam (Form 11)
- ❑ Form 380 Ph.D. conferred at a remote campus
- ❑ Submit final thesis by end of semester
- ❑ Pay microfilming fee to Purdue University Bursar
- ❑ Complete Form GR-79-4A “Post M.S./Ph.D. Information”
- ❑ Complete NSF Survey on Earned Doctorates

See page 25 for a more complete list of forms.

FINANCIAL ASSISTANCE

Teaching Assistantships

The Biology Department currently offers graduate student Teaching Assistantships to qualified, full-time M.S. thesis and Ph.D. students. In 2011-2012 the award includes a stipend of \$19,000 for M.S. thesis students and \$23,000 for Ph.D. students. Periodic increases in stipends are

anticipated. In addition, students receive a fee scholarship, which remits most of the tuition costs and payment of the mandatory student health insurance premium. To qualify for a Teaching Assistantship, foreign students must take the SPEAK (oral English proficiency) exam administered by the IUPUI ESL program. Students who do not pass the exam must enroll in G020, Communication Skills for ITAs, before retaking the exam. Because the objective of the financial support of the stipend and fee scholarship is to provide the student with the opportunity to devote a full-time effort to classroom, teaching, and research responsibilities ***it is expected that recipients will not hold outside employment.***

Teaching assistantships are renewable for up to four semesters for M.S. thesis students and ten for Ph.D. students, providing that the recipient is making satisfactory progress toward the degree and is discharging the teaching assignment in a quality, professional manner. *At the end of each semester of support, students may be required to submit a progress report* on their academic and research progress. Research advisors and course directors will also submit research and teaching evaluations, respectively. Those students whose research progress or teaching quality is insufficient will be notified; if, at the end of the following semester, sufficient progress has not been made, support will be terminated.

Each semester the responsibilities of a teaching assistant will be two laboratory sections or a combination of laboratory-recitation sections (6-8 contact hours per week) in an introductory biology course or an upper level course in which the individual has had experience. Every attempt will be made to match the course with the individual's background and interests, as well as to maintain a consistent teaching assignment from semester to semester. However, certain situations may arise to make this impractical or impossible. In addition to meeting the laboratory sections the teaching assistant may be required to attend lectures in the first semester; participate in organizational meetings with other assistants and the course director; set up, administer, and grade laboratory exams; and proctor lecture exams.

Research Assistantships

Major professors may have research grants that include stipend, tuition remission, and fees for graduates students hired to work on the funded research project. The availability of research assistantships will vary each year among advisors. The awards are not made by the Department but rather are arranged directly with the major professor. Competition for research assistantships will be keen, and each student is encouraged to consult with their major professor as to the likelihood of there being available an assistantship for which they may be eligible. Ph.D. students supported in this manner are expected to teach one laboratory section at some time during their appointment, as this activity is considered to be an essential component of graduate training.

Because the purpose of research assistantships is to provide the opportunity for students to devote full-time effort to research and classroom studies, ***it is expected that recipients of research assistantships will not hold outside employment.*** As with other mechanisms of financial support, *students receiving research assistantships may be required to submit a report on their academic and research progress at the end of each semester in which they receive financial support*, and the major professor is also consulted as to the quality of the student's

efforts. Those whose performance is insufficient will be notified and given one semester to correct the deficiency, or support will be terminated.

Research assistantships are the same level of support as teaching assistantships including tuition fee remission and health insurance premiums (see previous section).

University Fellowships

Ph.D. students with outstanding credentials may receive competitive, first year IUPUI Fellowships. Stipends may vary from Department support levels but students are guaranteed the Department stipend as a minimum. Department first year Fellowships may also be available and also carry stipend levels of at least the standard Ph.D. stipend level. All first year Fellowships come with fee remission and graduate student health insurance.

There is a list of Indiana University graduate school awards and the proposal deadlines at <http://www.indiana.edu/~grdschl/awardmem.html>. Purdue University has similar information at <http://www.purdue.edu/GradSchool/Funding/funding.html>.

Because the purpose of fellowships is to provide the opportunity for students to devote full-time effort to research and classroom studies, ***it is expected that recipients of fellowships will not hold outside employment.*** As with other mechanisms of financial support, *students receiving fellowships may be required to submit a research progress report at the end of each semester in which they receive financial support*, and the major professor is also consulted as to the quality of the student's efforts. Those whose performance is insufficient will be notified and given one semester to correct the deficiency, or support will be terminated.

Fellowship Application (Ph.D. only)

Because the Ph.D. degree is a research degree, and research must be supported financially, students in the Ph.D. program are strongly encouraged to apply for fellowships, scholarships, or grants to furnish their stipends and support their research. Several awards, *e.g.*, National Science Foundation predoctoral grants, are aimed at beginning graduate students and thus require that proposals be written by students during their first year of study. Garnering external support is also important for the time that the student is writing his/her dissertation and is not contributing on a daily basis to the major professor's research efforts. Note that financial support by the Department is guaranteed so long as satisfactory progress toward the degree is made. Information on external funding opportunities is available on IUPUI web pages (see previous section) and one's major professor.

STUDENT RESPONSIBILITIES

Grades

Only grades of A, B, and C are acceptable on a Plan of Study. In certain instances, the Graduate Admissions Committee or the Graduate Advisory Committee may stipulate performance above a C in some or all courses.

M.S. Nonthesis students are expected to maintain a minimum cumulative GPA of 3.0 in the primary area. Grades of B or better are required for the minimum 9 hours of course work for the M.S. thesis degree. Indices below these levels will be marked "low" on the grade reports. Each student's progress will be reviewed each semester by the Dean of the Graduate School, the Graduate Admissions Committee, and the individual's Graduate Advisory Committee. If a student's overall or course work GPA falls below 3.0 the student will be placed on "probationary" status. The Graduate Advisory Committee will then meet with the student and formulate a plan to correct the problem. For full-time M.S. thesis students this meeting and the proposed resolution must be addressed immediately upon learning of the low GPA, as this program spans only two years. Should the student fail to return to a satisfactory level of performance, he or she may be asked to discontinue graduate study. Students who do not attain a grade of B or better in an undergraduate course will not receive credit for that course. This particularly impacts one year non thesis students.

Seminar Attendance

Graduate students are expected to attend the weekly seminars scheduled by the Biology Department. Seminars are generally held Friday at 11:00 AM during the spring and fall semesters. Seminar speakers include scientists visiting from other national or international institutions, Indiana colleges and universities (including IUPUI), and Indianapolis-vicinity industries and research institutions. Students are invited to suggest names of scientists to include in the seminar series, and at least one seminar slot per semester will be reserved for student-invited speakers.

Performance Evaluations

Teaching Assistants: Teaching assistants are, in addition, evaluated in their teaching performance. Student satisfactory surveys are administered for each section met by the teaching assistant, and the course director also provides an evaluation. Teaching assistants failing to conduct their teaching assignment in a satisfactory manner will be given guidelines for improvement, and if satisfactory improvement in teaching quality is not made during the next semester, financial support will be terminated at the end of that semester.

Presentations at Scientific Meetings

Public presentation of research results is a necessary part of graduate training. Several opportunities to attend and present at scientific meetings are provided to both M.S. thesis and Ph.D. students. Attendance and, after the first year, presentation at a minimum of one local

meeting is expected for all full-time students. Local meetings include the IUPUI Graduate Student Research Symposium (hosted by the School of Science Graduate Student Council) and the Indiana Academy of Science (held at various institutions throughout the State), as well as regional meetings that individual major professors may suggest for different research areas.

To further the professional development of graduate students, the Biology Department will provide some travel funds for full-time students to present their results at major national meetings in their discipline. Ph.D. students are eligible for two national meetings, and M.S. thesis students for one national meeting during their graduate programs. Satisfactory performance in research, course work, and teaching (if applicable) and the recommendation of the major professor are required for a student to be eligible for this opportunity.

WHERE TO GO TO GET WHAT YOU NEED

Registration

Courses: Graduate students register for classes at the same time as undergraduate students. Registration may be accomplished by telephone or computer. The Schedule of Classes, printed in the middle of the fall semester (for spring semester registration) and the spring semester (for fall and summer semester registration), lists the weeks during which registration is available; final registration closes approximately 5 days before the beginning of the semester. If necessary, schedule adjustments (not new registration) may be made during the first week of classes without penalty; schedule adjustment forms are taken to the Registrar's Office during normal business hours. Registration information is printed in the Schedule of Classes. Domestic M.S. thesis students will register for a total of 15 credits/year. International M.S. students will register for a total of 16 credits/year (8 credits/semester). PH.D. students will register for 18 credits/year and require 90 credits to graduate.

Research, Seminar, Special Assignments: Permission to register for courses requiring authorization (BIOL 59500, 69600, 69800, 69900) is obtained in the Biology Department office (SL306) and is accomplished on-line. Without authorization students will be unable to register for these courses.

Candidacy: In the final semester of registration the degree candidate must register for Candidate (CAND 991, 0 credits) in addition to the usual registration. This alerts the School of Science and the Graduate School to the anticipated graduation of the student. For additional details, see the section on Declaring Candidacy in the Master of Science and Doctor of Philosophy sections.

Tuition remission

Students eligible for tuition remission should contact the Biology Department's administrative assistant indicating the number of credit hours taken. Some mandatory fees are not covered by the tuition remission award.

Student Health Insurance

Assistantship and Fellowship awards include payment of the mandatory student health insurance premium. Enrollment in this plan is automatic for student academic appointees (assistants, fellows) and there is no cost to the student for the health insurance plan. If a student wishes to enroll dependents in this plan, he/she should consult the Academic Affairs website <http://academicaffairs.iupui.edu/policies/student-academic-appointments/> for additional information. Students wishing to waive this mandatory insurance coverage should provide proof of other coverage.

Keys and KeyCards

As needed, keys to research laboratories, common-use and restricted-use areas, and teaching laboratories are issued to students. The Administrative Assistant in the Biology Department places the orders for keys. Students should request keys from the Administrative Assistant either at the orientation session for new students or on the first day of the semester, whichever comes first. Those students entering the graduate program from undergraduate or continuing non-degree status in the department, or who are otherwise familiar with the department, may place an advance request for keys.

KeyCards are issued for access to the outside doors of the SL and LD buildings, the animal facility in the School of Science, and the Biology greenhouse. The Administrative Assistant orders these KeyCards except for access to the animal facility. Students using animals for research or teaching must first complete a training session (see the section on Training Sessions); the Supervisory Technician coordinates training materials and requests for KeyCards and keys to the animal facility.

Student ID and Email Accounts

The student ID card is the IUPUI Jagtag. Students should access www.jagtag.iupui.edu to learn how to obtain their ID cards. Students must present proof of identification and student status IU ten digit number to obtain their ID cards. Students should visit <https://itaccounts.iu.edu> to set up their email accounts

Photocopying

The Biology Department has a copy machine in SL306 available for duplicating related to *research and teaching needs only*. SL306 is not open evenings and weekends, and therefore duplication of materials such as quizzes and handouts should be accomplished between 8:00 AM and 5:00 PM Monday through Friday. Copying for personal use or for course work is not permitted on this copy machine; for personal copying there are pay-per-copy duplicating machines on the second floor in the atrium between the SL and LD buildings and nearby in the IUPUI University Library.

Training Sessions

General Safety: A two-hour safety training session for all new personnel is held by the Office of Environmental Health and Safety essentially weekly throughout the year. Registration is not required. A separate two-hour lab safety session is offered once a month; contact Environmental Health and Safety at 274-2005 for details and times. Kurt Kulhavy, Departmental Supervisory Technician can assist new students with making the arrangements to attend these sessions.

Radiation Safety: Students who will use radioisotopes as part of their research project are required to apply for authorization to use radioactive materials from the Radiation Safety Office. Generally the major professor is the Permit Holder for radionuclide use. Those having no previous experience using radioisotopes must attend a brief orientation session and then a training course (2 hours per day for 1 week), and subsequently pass an examination. Those having previous experience with radioisotopes must attend the orientation session but may forgo the training course if they pass the examination.

Use of Animals: Students using animals in their research project or teaching assignment must receive training in animal use and regulations. The initial training materials include a videotape accompanied by a written manual; continuing education may include newsletters, group training sessions, and individual training sessions with the Attending Veterinarian. The Supervisory Technician of the Animal Facility arranges for training materials.

Biohazards: The Office of Environmental Health and Safety also offers a training session on bloodborne pathogens; it is offered on the same dates as the general safety sessions, and registration is not required. Contact Environmental Health and Safety (274-2005) or the Supervisory Technician with questions.

Shared Equipment and Department Etiquette

Several pieces of equipment are shared by researchers in the Biology Department. There are guidelines for the use of this equipment that should be read and understood before using the equipment. These guidelines are available at the orientation session for new graduate students, from the Supervisory Technician, and at mandatory annual or biannual shared equipment meetings. Note that these guidelines stress that it is better to ask for instructions from the faculty or staff member in charge of the equipment than to use the equipment untrained and unsupervised. Departmental etiquette also stipulates that each person ask permission to use supplies and equipment that is not his or hers, and be fair and courteous with shared departmental materials.

Important Contacts

Departmental Contacts:

DEPARTMENT OFFICE

Location	SL306
Telephone	274-0577
FAX	274-2846
E-mail	biology@iupui.edu
Home Page	http://www.biology.iupui.edu

ADMINISTRATION, OFFICE STAFF, TECHNICAL STAFF

Position	Name	Office	Phone	E-Mail
Chairman	Dr. Simon Atkinson	SL306B	274-0588	satkinson@iupui.edu
Director of Graduate Programs	Dr. Martin Bard	SL324	274-0593	mbard@iupui.edu
Administrative Assistant	Sue Merrell	SL306A	274-0575	smerrell@iupui.edu
Secretary/Advisor	Shari Dowell	SL306	274-0577	dowellsh@iupui.edu
Supervisory Technician	Kurt Kulhavy	SL314	274-0579	kkulhavy@iupui.edu
Director of Lab & Curriculum Support	Rick Frey	SL333	274-0583	rfrey@iupui.edu

University Contacts:

Information on these units can be accessed from the IUPUI Home Page (<http://www.iupui.edu>) and from the School of Science Home Page (<http://www.science.iupui.edu>).

University Unit	Phone	Location*
Adaptive Educational Services (AES)	274-3241	UL3135R
Bookstore, University	278-2665	CE
Bursar	274-2451	CE
Center for Teaching and Learning	274-1300	UL1125
Dean's Office, School of Science	274-0625	LD222
English as a Second Language (ESL)	274-2188	CA243
Graduate School, IU (IUPUI)	274-4023	UL
Library, Ruth Lilly Medical School	274-7182	IB
Library, University	274-8278	UL
Occupational Health Services	274-5887	CF
Police (IUPUI)/Emergency	274-7911	430 N. University Blvd.
Police (IUPUI)/Information	274-0527	430 N. University Blvd.
Registrar	274-1501	CE
Student Council, School of Science	278-2405	LD016
University College	274-2237	UC
University Information Technology Services (UITS)/Support Center	274-4357	
Writing Center	274-2049	CA427

BS, 801 W. Michigan St.
CA, 425 University Blvd.
CE, Camus Center, 420 University Blvd.
CF, 1140 W. Michigan St.
ET, 799 W. Michigan St.
IB, 975 W. Walnut St.
LD, 402 N. Blackford St.
UC, Taylor Hall, 815 W. Michigan St.
UL, 755 W. Michigan St.
UN, 620 Union Dr.

FORMS

Convention Regarding Submission of Forms

Students should work with their major professor to insure timely submission of forms and are responsible for initiating the submission of forms. Students are not allowed access to departmental records and files of forms, but should arrange through their major professor or departmental staff member to obtain blank copies of forms. The forms should be completed (*e.g.*, with names, titles, dates, *etc.*) jointly by the student and major professor and then submitted to the Director of Graduate Programs/Department Chairman.

List of Forms

<http://www.gradschool.purdue.edu/faculty/forms.cfm>

Form Number	Title/Purpose	Submission Deadline
GS-Form 4	Request for <i>Ph.D.</i> Degree Advisory Committee and Plan of Study Approval	After successful completion of Qualifying Examination
GS-Form 6	Request for <i>Master's</i> Degree Advisory Committee and Plan of Study	As soon as possible; must be approved before final semester
GS-Form 7	Report of <i>Master's</i> Examining Committee	End of each semester (schedule distributed by PU Graduate School)
GS-Form 8	Request for Appointment of Examining Committee (<i>Master's thesis and Ph.D.</i>)	To Graduate Secretary 3 weeks before final examination (thesis defense)
GS-Form 9	Thesis Acceptance page	Bound in original copy of final thesis
GS-Form 10	<i>Ph.D.</i> Report of preliminary Committee	
GS-Form 11	<i>Ph.D.</i> Thesis Defense/Final Exam	Completed after final exam
GS-Form 13	Request for Change to Plan of Study	Submit as needed
GS-Form 15	Request for Confidentiality of Thesis	Submit with deposited thesis
GS Form 16R	Thesis Deposit Form	Obtained from graduate school
GS Form 19	<i>Master's</i> Thesis Agreement	Submit with deposited thesis
GS Form 20	Research Integrity and Copyright Disclaimer	At end of final semester
BIOL-GR	<i>Ph.D.</i> Advisory Committee Report of Oral Preliminary Examination or Research Conference	After preliminary examination, or after each annual research conference
Form 380	<i>Ph.D.</i> conferred at a remote campus	SOS Dean's office

Some helpful websites

Graduate Office <http://www.iupui.rfu/~gradoff/>
Office of the Bursar <http://bursar.iupui.edu/>
Campus Maps <http://www.iupui.edu/map>
JagTag Services <http://www.jagtag.iupui.edu>
Libraries <http://www.iupui.edu/about/libraires.html>
Oncourse <http://oncourse.iu.edu>
Onestart <http://onestart.edu>
Parking Services <https://www.parking.iupui.edu/home.do>
Registrar <http://registrar.iupui.edu/>
Schedule of Classes <http://registrar.iupui.edu/schedule.html>
Student financial Aid <http://www.iupui.edu/~finaid/>
Health Services <http://health.iupui.edu/>
Housing and Residence Life <http://life.iupui.edu/housing/>

Academic Integrity

The Biology Department is involved in training students to be the highly respected professionals that society expects from physicians, dentists, research scientists and other highly esteemed occupations. These fields have always demanded absolute integrity from those who practice these arts. We know that the vast majority of students that come through our classrooms are hard working and honest, which speaks volumes about their personal integrity. They should be proud of themselves; we are certainly proud of them and proud of those who have come before you and honestly succeeded in our program. And students should also know that if it seems to them that there are others who are “getting away” with something, they should rest assured that it is not so. Word spreads very quickly among students and faculty with regard to individuals who do not adhere to the highest ethical standards. Faculty in the Biology department will and can not tolerate anyone who harms our professional reputations. We expect that our students will continue to abide by the utmost ethical standards themselves and join us in exposing the misdeeds of others however unpleasant that may be.