GRADUATE PROGRAM HANDBOOK

DEPARTMENT OF BIOLOGY

2014 - 2015
Welcome to the Graduate Program in Biology. Our faculty are dedicated to your success, and will provide you with personal attention, superb resources, and room to explore and excel. Research is the primary focus of our Master's program. We hope not only that you will gain essential information about the field you are studying, but that you will make a significant contribution to that field and develop a deep-rooted appreciation for scientific thinking and experimental design. We look forward to your discoveries, your continuing educational growth, and your company.

This handbook contains information, policies, insights, and anecdotes. It lists important departmental target dates and Graduate School deadlines that you will need to keep in mind. Sample copies of numerous departmental and Graduate School forms that you will be endlessly filling out are also included.

Revised October 2014
REGISTRATION

During your first semester, your temporary advisor/director will be the Graduate Program Director. He/she will plan your course schedule with you and sign the Graduate Course Approval Form. Then bring the form to the Biology Department office. Form. After the Biology Department staff removes a block from your registration you will be able to register by touch tone telephone or Quick Check online as described in the Course Schedule booklet.

By the time you register for second semester, however, you will have a permanent thesis director. Before registering for each semester you will need to complete a Graduate Course Approval Form. Plan your course schedule with your director, have him or her sign the form, and bring it to the Biology Graduate Program Director for his or her signature. Then take the form to the Biology Department office, where you will be entered into the computer. Then you may register as usual.

Our full-time graduate students generally register for seven to nine credit hours each semester. The maximum course load permitted is 12 credits per semester. Remember, those students on tuition fellowships are receiving only 13-15 credit hours of tuition scholarship per year; you will pay out of your own pocket for more hours. International students must register for eight credit hours each semester except for their last to be in compliance with a student visa. Tuition scholarship may not be used for course work that is not applicable toward the M.S. Degree. Non-applicable course include all English as a Second Language courses,

Directed Readings (493), Research (422), Thesis Supervision (595) and a limited selection of 300 level undergraduate courses are the only classes offered for graduate credit during the two summer sessions. Registration during the summer for any of the above offerings is optional. Non-registration during the summer will have no impact on your status as a graduate student or graduate assistant, or on your student visa status.

ID Cards

Student ID cards are available at the Sullivan Center.

CAMPUS COMPUTERS

Your universal login ID and temporary password will be available on or at orientation. You will be able to use any computer on campus. If you have trouble logging in - dial 4-4444 from any Loyola phone to reach the Computer Help Desk.

It is against Department regulations to make any additions, subtraction, or change to any Biology shared computers.

ADMISSION ON PROBATION

Students admitted on probation must register for at least eight credit hours in their first semester. Removal from probationary status entails attaining a GPA of 3.0 in the first semester (Department rule) AND attaining a grade of B or better in the first three graduate courses taken (Graduate School rule). Failure to meet either of these requirements will result in dismissal from the program.
A WORD ABOUT DEADLINES

You’ll see deadlines for completion of specific requirements for the degree scattered about this handbook. Please be aware that the dates mentioned are dates that keep you off probations, not dates that will get you finished in two years. The program usually takes longer than two years to complete. If your personal goal is to complete the program in two years, set your own accelerated deadlines.

COURSE REQUIREMENTS AND SCHEDULING

You are required to complete a minimum of 15 hours of formal (didactic) courses. Research (422), Seminar (501), and Teaching Practicum (511) are not considered formal courses. You may want to avoid enrolling in these courses beyond the minimum requirements until an accurate assessment of the number of non-didactic credits you need to reach 30 hours can be made. Directed Readings (493) may or may not be considered a formal course. Designation of a specific Directed Readings as a formal course depends on the nature of the offering, which should be clearly reflected in the course outline submitted (check with the Graduate Program Director). You may take up to 9 credit hours of 300 level classes. When a 400 level class is cross-listed at the 300 level, graduate students are strongly advised to take the 400 level offering. Students enrolled at the 400 level are generally assigned independent projects that require more advanced preparation.

Your thesis director should help you devise an individualized curriculum with an appropriate mix of didactic and non-didactic courses that yields 30 credit hours. Premature repetition of non-didactic courses can cost you several hundred dollars in tuition. How many and which didactic elective courses you take will be determined by you and your director, based on your background and the specific area of research in which you are engaged. You must take at least 3 credit hours of Research (422), but should take additional 422 credits only to bring your total hours to 30. You need not register for research credits in proportion to the time spent on your research.

Graduate courses in related departments (Chemistry, Psychology, Microbiology, Anatomy, Physiology, etc.) may be taken for degree credit, but you must obtain written permission from the Chairpersons of both Biology and the other department. Enrolling in Directed Readings (Biol 493) requires that you complete the appropriate form available in the Biology Office.

Students who have fulfilled all course requirements and have completed 30 hours of graduate credit must register for Thesis Supervision (595). Possible exceptions may occur if you wish to register for a didactic offering after you have completed 30 credit hours. Students must continue to register for Biol 595 every semester until they complete all degree requirements. You are not authorized to use university facilities, like your director's laboratory and the library, if you are not registered. Spring registration also covers the summer. The Graduate School will also require payment for all semesters in which you failed to register at the time you graduate.
The M.S. in Biology must be completed within five years of matriculation. If you have not finished all requirements within five years, you must apply to the Graduate School for an extension in order to be allowed to continue working on your degree. The Graduate Program Director can provide further information on filing the application.

ALL REQUIRED COURSES MUST BE PASSED WITH A GRADE OF C OR BETTER.
TEACHING IN BIOLOGY

Student Requirements

The teaching requirement for the M.S. in Biology will be one semester of Biology 510 (one credit hour) and, following that, one semester of Biology 511 (Teaching Practicum, two credit hours. Students on full stipends must also complete a second semester of Biology 511 (Teaching Practicum) as a condition of receiving the full stipend.

Biology 511 (Teaching Practicum) is a single semester’s experience as a teaching assistant in a (usually) 200- or 300-level course taught by a member of the Biology Graduate Faculty. Assignment of a student to a particular course will by jointly by the Chairperson of the Department, the GPD and the Chair of the Graduate Committee. Professors will submit requests for teaching assistants, and students will submit their preferences. A student’s academic background will be taken into consideration. Every effort will be made to place a student in a course taught by her/his thesis director or, failing that, in a course taught by another member of the student’s thesis committee.

Students will attend lectures, assist with writing and grading of homework and tests, and prepare and present two lectures in the course. If the course has a laboratory, participation in laboratory preparation, presentation, and monitoring might be expected.

A student’s total time commitment in Biology 495 (Teaching Practicum) will be no more than ten hours per week, of which about half might be attending lectures, and no more than one-third will be in any one category or duty. Categories may include: 1) leading discussion, 2) grading homework, 3) preparing and grading test, 4) preparing and presenting lectures, 5) preparing lab exercises and/or materials, and 6) presenting and monitoring lab exercises.

Students will be required to keep a log of time spent in different categories of work. The log will be reviewed by the course instructor and by the GPD to ensure that workloads are equitable and appropriate.

TEACHING EXPECTATIONS

All students are required to enroll in Teaching Biology (510), usually in their first semester. Students will also be assigned as teaching assistants in an undergraduate course during a later semester as part of their teaching requirement for the degree. Students receiving full stipends and tuition scholarships from the Graduate School are required to serve two semesters as teaching assistants. Methods for assigning teaching assistants, and expectations of teaching assistants, are included in the Appendices. Serving as a teaching assistant entails registering for Teaching Practicum (511).
FULL-TIME VS. PART-TIME STATUS

The schedule for completing course requirements, and the target dates for progress through the program, are based on full-time participation in the program. The median time to completion over the last 10 years has been 2 years, 2 months for students on full stipends; and 2 years, 7 months for students on partial stipends or on no support. In order to complete the program in a timely fashion, students normally need to spend at least 40 hours a week working on their thesis research. If you are not able to put in this time commitment (e.g. because of an outside job), you can expect to take longer to complete the program.

For students in the degree program (as opposed to Unclassified) who are supported, carrying a "full load" of seven to eight credit hours each semester is not required to maintain full-time status for insurance purposes or loan deferments. Full-time vs. part-time status is not determined on the basis of the number of credits you carry during the semester. Graduate School certification of students as full-time or part-time is based on ongoing participation in the program, not number of credit hours taken. While students enrolled for seven to eight hours are generally assumed to be full-time, those enrolled for less than eight hours are not arbitrarily considered part-time. Certification is done on a case-by-case basis. Students registered for three hours or even for Thesis Supervision (0 hours) may often be certified as full-time; if indeed they are making "full-time" commitments to their studies or research. For unsupported degree students, Graduate School certification as full-time or part-time is even more complicated! See the Graduate Program Director for assistance.

If you need to be officially certified as a full-time student for any reason, please contact the Graduate Program Director. After reviewing your case, he or she will make a recommendation to the Graduate School Dean. However, only the Dean of the Graduate School is empowered to certify students as full time.

STIPENDS AND TUITION FELLOWSHIPS

The Graduate School provides our program with limited funds for stipends and tuition scholarships. Because successful completion of the program in two to three years requires a full time commitment on your part, we strive to support as many students as possible. The Biology Department makes two types of awards, based on merit, when students enter the program. The most highly qualified applicants may be offered stipends of $11,000 per year plus a tuition scholarship of 15 credit hours. (15 credit hours per year is a full course load.) Only a limited number of such awards are made. To be considered for these awards, students should have at least a 3.3 undergraduate grade-point average, a total of at least 2300 on the four GRE tests, and very strong letters of recommendation. Exceptional credentials in one area may offset weaknesses in others. The second type of award (partial) for highly qualified applicants carries a stipend of at least $5,500 per year plus a tuition fellowship of 13 - 15 credit hours. Minimum criteria for these awards are usually at least a 3.1 undergraduate GPA, a total of at least 2100 on the four GRE tests, and strong letters of recommendation. Since award decisions are made in March, there are usually not sufficient funds available to support students who apply late.
Both types of awards are made with the understanding that students will keep their respective awards for a second year, assuming they meet the standards for continuation. In order to continue receiving full awards students must have a 3.5 GPA for their courses during the first two semesters. Students with partial awards must have a 3.2 GPA over the same period to continue their awards. In both cases students must have the recommendation of their research advisors. Holders of full awards who fall below 3.5 (above 3.2) will become eligible for a partial award. Other requirements for renewal of stipends and tuition scholarships for a second year include regular attendance of departmental events (seminars and defenses), and final committee approval of the thesis outline. Rare extenuating circumstances that might preclude a student’s meeting these requirements will be handled on a case-by-case basis. Even though students frequently take longer than 2 years to complete the program, please remember that there is no Graduate School support for students after their first two years. This does not preclude a student being supported longer on an individual faculty member's grant.

Students who enter the program in January are not eligible for Graduate School support their first semester, but will be considered for fellowship awards along with students entering the following August. The same merit criteria described above apply for students admitted at mid-year. Students who do not receive funding during this competition will not be eligible for Graduate School support in subsequent years.

Students entering the program in August without funding (or mid-year admissions receiving no funding after their first semester) understand that they will not be eligible for any Graduate School support throughout their stay at Loyola. This does not preclude their being supported on individual faculty members' grants. Faculty members with outside grants sometimes have funding available to support their own students. Other sources of support (e.g., loans) are available to Graduate Students. Check with the Graduate School Office or the Financial Aid Office.

All continuing students seeking to renew their support for a second year must submit an application in February. In addition, a Financial Aid Form must be filed. The latter may qualify students for additional sources of support, including Federal Work/Study assistance. Activation of assistantship for students entering their second year may be delayed until student's Thesis Proposals are submitted to the Graduate School.

These are full calendar year awards, and assistants are expected to devote full time to their programs during the summer months. While some students may take on outside employment during their studies, satisfactory progress in your program must remain your highest priority. Students are strongly discouraged from engaging in activities that compromise their progress in any way. In the case of fully supported students, the Biology Department and the Graduate School consider outside employment in excess of twenty hours per week as unacceptable, and your support will be terminated.

Students receiving any financial support administered through the university are required to complete and submit a few standard employment forms. Forms are available at the Graduate School office in the Granada Center.
CHOOSING A THESIS DIRECTOR

Choosing a thesis director will be the most important decision you will make in the course of your studies. Not only must your research interests parallel those of your director, but some measure of personal rapport will also be essential. Remember, you will be spending the better part of two years in his or her laboratory. The pamphlet on faculty research interests is an excellent source of information. It not only outlines the various research programs, it also lists recent publications. During orientation week you will be hearing presentations by each faculty member describing the research that goes on in their laboratories. Right after the semester begins you should begin setting up appointments with those faculty whose research programs stimulate your interest. We recommend that you interview at least three faculty members. Feel free to peruse their publications or ask for copies of soon to be published work. You may even request spending time in a particular laboratory, although such requests are sometimes difficult to grant. "Veteran" graduate students can also provide valuable insights and information.

During your interviews, you should be sure that you make your prospective thesis director aware of you anticipated time commitment to your graduate studies. You should obtain explicit information from them regarding their expectations of time commitment on your part, and the level of independence expected in designing and executing a thesis project. These expectations vary among labs, and you should endeavor to find a good fit for your learning style.

We try our best to ensure good matches between students and faculty. Please be aware that some faculty may not be able to accommodate new students in a particular year or may have to choose among interested students. Faculty members are asked not to make commitments until all interested students have interviewed them. Generally, at the end of the interviewing process, individual faculty and students mutually agree on Thesis Director assignments. However, assignments must be approved by the Biology Chairperson and subsequently by the Dean of the Graduate School.

The department has Thesis Director Appointment forms in the Biology Office. The target date for filing this form is October 15 of your first year. For mid-year admissions the target date is March 1. If you have any questions or are having any trouble connecting with a suitable Director, don't hesitate to see the Graduate Program Director or the Biology Chairperson.

CHOOSING A THESIS COMMITTEE

By the end of your first semester, you should have a general research goal in mind. In consultation with your director, you should write a brief one page statement summarizing your research project by January 15. (Mid-year admission deadline is June 1). You should then approach potential committee members, give them a copy of your project summary, and solicit their participation in your endeavors. We encourage students to choose not only committee members that are well-versed in the area of their proposed research, but to consider faculty who can also provide a novel perspective. Along with your director, the committee must include two other Biology Graduate Faculty members. If you wish, additional members may be drawn from the Biology faculty, graduate or non-graduate faculty from other departments, or even faculty members from neighboring departments.
institutions. For non-Loyola committee members, the Graduate School will request a copy of the proposed member's vita before approving the committee. These additional members may be voting or non-voting members. All voting members of your committee must be present at your final oral defense.

To formalize your committee, complete the departmental Thesis Committee form and give it, along with a copy of your one-page summary, to the GPD. The Graduate Committee must approve all committee formulations. The GPD will contact you regarding approval or any changes that need to be made. Once you have received approval, complete the Graduate School Thesis Committee form and turn it in to the Graduate School.

The Thesis Committee must be formally established by February 1 of your first year. (Mid-year admission deadline is June 15). The first meeting of the thesis committee to discuss and approve the project summary must take place by March 1. (Mid-year admission deadline is July 15).

**THESIS PROPOSAL**

During your second semester, it's time to start planning your Thesis Proposal. Necessary forms are in the Graduate School forms packet. This proposal will enable your thesis committee to effectively provide you with constructive comments, and to help you plan and implement your experiments before you have made a major commitment of both time and resources. Your Thesis Director has the primary responsibility for supervising your research, but the contributions of your other committee members are extremely important, and their counsel should be sought early and often.

The following resources are available to you for guidance on writing your thesis proposal: your thesis director and thesis committee; the GPD; sessions on writing held during Graduate Seminar (Biology 501); and copies of proposals written by previous graduate students. Once you and your thesis director are satisfied with your thesis proposal, distribute it to your thesis committee. Schedule a committee meeting at which you will defend your proposal and your committee will vote on its approval. You must allow your committee at least one week to read and comment upon the thesis. All committee members must sign the “Ballot for the Approval of a Thesis/Dissertation Proposal” for it to be approved. Once you have secured all committee signatures, file a copy of the approved proposal, along with the “Ballot” and the “Thesis/Dissertation Proposal” form with the Graduate School.

If your proposal involves vertebrate animals or human subjects, it must be approved by the Institutional Animal Care and Use Committee or the Institutional Review Board for the Use of Human Subjects.

The sooner you accomplish this, the sooner you can proceed with the confidence that you have full committee approval and support. The Proposal is an agreement between you and your Committee as to what research you need to accomplish for your degree. Remember that you are developing a proposal for your thesis research, not generating a thesis. You and your director will have to agree on how many preliminary experiments need to be done before preparing the proposal and how
extensive its literature review needs to be. Your committee members can also be helpful in guiding your proposal preparation. The proposal must be completed in a timely fashion to meet departmental goals for satisfactory progress. Note that the departmental deadline for obtaining official approval of your Thesis Proposal is **August 31**, and that the Graduate School will collect a $30 fee at the time of its submission. (Mid-year admission deadline is January 15).

It is the policy of the Biology Department that full-time graduate students who have not had their thesis proposal approved by their committee within one calendar of their matriculation will be put on probation for one semester. Any student failing to obtain committee approval of the thesis proposal by the end of the probationary semester will be subject to dismissal from the program. Dismissal and/or non-renewal of stipends must be approved by the Graduate Committee. Input from the student, the thesis director, and the thesis committee will be taken into consideration.

**THESIS COMMITTEE MEETINGS**

In order to keep your thesis committee members abreast of your progress, you must schedule regular committee meetings. After initially meeting with your committee in the second semester of your first year to discuss the project summary, and in the summer to discuss the Thesis Outline, you must continue to meet with your committee at least twice a year until you have distributed a draft of your thesis to your committee members. These meetings are best scheduled in January/February and in August/September. Meetings should be scheduled even if your progress is primarily thesis preparation. In conjunction with these meetings, written progress reports may also be submitted at the discretion of your Thesis Director or committee members. Additional meetings may also be requested by you, your director, or committee members. At each meeting, you and all committee members must sign and date a Thesis Committee Meeting Form, which you should give to the GPD for placement in your file.

**RESEARCH SUPPORT**

Biological research can be very expensive. Supplies, including chemicals, biological materials, and plastic ware, can easily cost over a thousand dollars per year per student. And these costs may be dwarfed by the expense of the equipment necessary to maintain a vigorous research program. Travel to national and even international conferences is also an essential and costly part of maintaining a strong research program.

The research carried out by members of the Department of Biology is funded by a number of different sources. Some faculty members are funded by federal or other external funding agencies or philanthropic foundations. Others are funded by awards granted by Loyola's Research Services. The Biology Department also makes a very significant financial contribution to research. However, financial considerations often influence experimental design and research direction.

While most funding agencies direct their grants to faculty and post-doctoral students, there are a few opportunities for M.S. students to submit extramural grant proposals. The Graduate School periodically distributes a list of granting agencies that solicit applications from students, along with deadlines for submission. **Sigma Xi**, the National Science Honor Society, sponsors a Grants-in-Aid
program specifically for graduate students. The application is not lengthy, and a number of biology graduate students have been able to augment their thesis director's budget with Sigma Xi support. The Illinois State Academy of Science also offers small grants to graduate students. Authoring a successful grant proposal, no matter how small, will greatly enhance your academic record.

Finally, the Graduate School can subsidize your travel to professional meetings in which you make a research presentation, either a poster or a talk. In recent years the subsidy has been $200-$250. You should submit your request for funding as soon as you receive written confirmation of acceptance of your presentation. The GPD has application forms.

THESIS PREPARATION

After you have completed most of your experimental work and your director and committee members are satisfied with your progress, you should begin working on your thesis. Your Thesis Proposal should serve as a good launching vehicle. Most theses consist of: 1) abstract -- a brief description of the project's goals and outcomes; 2) literature review; 3) experimental procedures and data evaluation (materials and methods); 4) results; and 5) discussion and conclusions. This list of headings is included only for illustrative purposes. Your Thesis Director may suggest an alternative outline, but your thesis should include all of the above elements.

The Graduate School publishes a booklet, "A Guide to the Preparation of Thesis and Dissertations." All students preparing Thesis must refer to this booklet. The format of the Thesis must conform to the regulations set forth in this booklet. Note that the Graduate School requires you to follow a recognized style manual. They recommend A Manual for Writers of Term Papers, Theses, and Dissertations by Kate L. Turabian, but will accept other styles WITH PRIOR WRITTEN APPROVAL. The title page of your Thesis must adhere to the Turabian model, as should preface (if present), table of contents, and lists of figures and tables. The Department keeps a copy of Turabian for your convenience.

The Department provides training in the use of the photographic darkroom, since you will be responsible for producing the figures for your Thesis and the slides for your oral defense.

THESIS DEFENSE AND GRADUATION

You must notify the Graduate School by filing an "Application for Graduation" at least four months in advance of the Convocation date (May or January) to receive your degree at that Convocation. Applications may be obtained at the Graduate School office. If you are unable to graduate at the end of the semester in which you file, you must complete the form again for the semester you anticipate graduating. An additional fee may be required, so be realistic when you decide when to apply for graduation.

A student does not generally submit his/her thesis draft to the Thesis Committee members until the Thesis Director is satisfied with the product. You can expect to work closely with your Director in preparing the Thesis and will probably go through several drafts with her/him. When you are ready to distribute your Thesis to your committee members, deliver their copies to them along with the
departmental Thesis text approval form. You must allow at least two weeks for your committee members to review the thesis.

PROCEDURE FOR SCHEDULING A DEFENSE

The format of the final defense is as follows: 1) There is usually a 15 -minute social before the seminar. Seminar announcements should indicate both the time of the social and the time at which the seminar will begin. 2) The GPD will convene the defense, and introduce the thesis director. In the event that the GPD cannot moderate the defense, the Chair of the Graduate Committee or a tenured member of the Graduate Committee will moderate. 3) The thesis director will introduce the candidate. 4) The candidate will give a 30-45 minute seminar of her/his work. 5) The moderate will conduct a question-and-answer period of 15-30 minutes. 6) The moderator will dismiss the audience. 7) The thesis director will chair a closed oral defense attended only by the candidate and the thesis committee. During this time, committee members will raise any questions or concerns they have about the thesis, the seminar, or other aspects of the project. 8) The thesis director will dismiss the candidate and chair a closed discussion with the thesis committee of the merits of the defense. 9) The thesis director will adjourn the meeting and announce the vote of the committee to the candidate.

Committee members should return the departmental approval forms to the Thesis Director as soon as they have completed their review. THE ORAL DEFENSE MAY NOT BE SCHEDULED UNTIL YOUR THESIS IS APPROVED BY YOUR COMMITTEE. All Thesis approval forms, signed by committee members must be submitted to The Graduate Program Director (GPD) before the oral defense can be scheduled. Once all committee forms are submitted, The GPD will inform the Biology Office that the oral defense may be formally scheduled. The student must provide the secretary with the title of your Thesis and Abstract with the date and time of your defense at least seven working days in advance of the event. The office will request a room, prepare the announcement, and distribute it to biology students, faculty, and staff, and appropriate offices. Notify the Graduate School of your defense by forwarding a copy of the announcement to Associate Dean Jessica Horowitz. Also, prepare a short autobiography and the abstract of your thesis for distribution at your defense. A sample is available in the Biology Office. Bring the Thesis defense ballot from the forms packet with you to the defense.

In order to participate in May or January Convocations, your thesis must be successfully defended at least 5 days before the last day to file an approved copy of the Thesis with the Graduate School (see Graduate Dean's Notes in current Class Schedule booklet for exact date). This generally entails submitting your thesis to your committee by March 1 for May graduation, or November 1 for January graduation.

Even if your written Thesis is approved by your committee without revision and you successfully defend it at your oral, note that at least three weeks will elapse between the day you distribute your Thesis to your committee and the day you pass your final defense. In addition, the final approved copy of your Thesis must be filed with the Graduate School no later than three weeks before Convocation (see Graduate Dean's Notes in current Class Schedule booklet for exact date), and your defense must take place at least one week earlier. That means in order to graduate in May, you must
distribute your Thesis to your committee by the middle of March. January graduation requires your committee have your Thesis by the middle of November. To allow time for revisions, we recommend an additional four week cushion.

Three copies of your Thesis with original figures are required by the Graduate School. These are bound, and one copy is retained in our departmental library.

EXIT INTERVIEW

All graduating students, and students terminating their program for any reason, should make an appointment with the Chairperson and Graduate Program Director for an exit interview. These interviews are extremely helpful to us and to you.

All students admitted to the program are expected to complete all degree requirements before entering post Master's studies. Students that leave the program prematurely unfairly tax both faculty time and program resources, and have nothing to show for their substantial efforts. If you do contemplate leaving the program before completing your degree, please let your Director know of your new plans and contact the Graduate Program Director and the Biology Chairperson.
IMPORTANT ACADEMIC DATES TO REMEMBER

FIRST YEAR

Sept 1: Begin interviewing prospective Thesis Directors
Oct 15: Departmental deadline for filing Thesis Director Form
Jan 15: Departmental deadline for writing one page summary of proposed research project
Feb 1: Departmental deadline for filing Thesis Committee Form
Feb 20*: Graduate School deadline for applying for Assistantship renewals
Mar 1: Departmental deadline for first meeting with Thesis Committee
Aug 31: Departmental deadline for obtaining approval for the Thesis Proposal by the Thesis Committee

SECOND/THIRD YEAR

Jan 22* Graduate School deadline for filing for May graduation
Mar 12* Last day to submit thesis for format check for May graduation
Apr 1* Approximate last day for obtaining committee approval of for May Graduation
Apr 7* Approximate last day to defend Thesis for May graduation (leaves one week for completing corrections)
Apr 11* Graduate School deadline for filing approved Thesis (and oral voting sheets) with Graduate School for May graduation
Sep 7* Graduate School deadline for filing for January graduation
Nov 14* Last day to submit thesis for format check for January graduation
Dec 1* Approximate last day for Committee Approval of Thesis for January graduation
Dec. 7* Approximate last day to defend Thesis for January graduation (leaves one week for completing corrections)
Dec 15* Graduate School deadline for filing approved Thesis (and oral voting sheets) with Graduate School for January graduation.

*Dates approximate; see Graduate Dean's Notes in the current Class Schedule booklet for exact dates.
THE CAMPUS AND THE NEIGHBORHOOD

Loyola's Lake Shore Campus sits on 33 acres of lakefront real estate on the eastern edge of the Roger's Park neighborhood. Straddling the Howard El tracks and Lake Michigan, we are about eight miles north of the Chicago Loop.

Three major streets converge at the Lake Shore Campus: Sheridan Road, Broadway, and Devon Avenue. Retail stores and restaurants are scattered along Broadway to the south, Sheridan to the north and Devon to the west, with the heaviest concentration of shops and restaurants in the heart of Rogers Park about a mile and a half west on Devon. Major supermarkets are short walks west on Devon or south on Broadway. Theaters, nightclubs, and cafes are within an easy walk or a short drive from campus.

HOUSING

Information on graduate student housing is available through the Office of Residence Life. The Lake Shore Campus is located in a residential neighborhood of primarily apartment buildings (3-flats to high rise) and single family homes. In addition to the city's two major newspapers, The Reader, a local weekly newspaper available free at newsstands and many shops and restaurants, has an extensive rental listing for this area. You can search this on line at www.chicagoreader.com. Many students have found nice apartments just by walking through the neighborhood and looking for "Apartment Available" signs. Don't forget that most of the graduate students in the program live close to campus, and they can be an invaluable resource for finding convenient and affordable housing. Please consult both the housing office and your fellow Loyola students before making any final decisions about an apartment.

CAMPUS PARKING

Parking permits can be obtained from the Security Office in the parking garage. Finding street parking around campus is generally a matter of exceptional luck. Parking is easier in the summer. Talk to senior graduate students about it.

GETTING AROUND

Getting downtown from the campus area is fast and straightforward. During classes, the university runs a free shuttle bus between the Lake Shore Campus and the Water Tower Campus at 840 N. Michigan Ave. Schedules are posted around campus. You can also take the Howard/Dan Ryan rapid transit south to Chicago and State and walk three blocks east on Chicago Avenue to Michigan Avenue. Alternatively, the 147 CTA bus goes down to Michigan Avenue via Lake Shore Drive. You can pick up the bus in front of the Loyola El station or on the corner of Sheridan and Winthrop on the south end of campus. Both the train and the bus continue on to the Loop.
The rapid transit will also get you to Evanston, Wilmette, and Skokie (north from the Loyola platform and transfer at Howard Street). If you'd like to take in downtown Evanston, get off at the Davis stop and drift east. Northwestern University's Science and Engineering Library is only four blocks east of the Noyes Ave. stop on the Evanston line.

Going to O'Hare Airport? Grab the "El" south to Washington and State, go down the stairs to the pedestrian tunnel leading to the O'Hare/Douglas-Congress line and get on either an A or B Train to O'Hare Airport. The trip doesn't require a transfer. (We wouldn't recommend this route late at night.) If you're heading for Midway Airport, take the El south from Loyola to Fullerton, transfer to the Ravenswood line on the same platform, and take this train to the Clark/Lake station in the Loop. Transfer there to the Midway (Orange) line which goes directly to the airport.

If your tastes run to rail travel, the Amtrak station is at Canal between Adams and Jackson Streets. Take the El from Loyola south to Fullerton, transfer to the Ravenswood line on the same platform, and take this train to the Quincy and Wells station in the Loop. Walk north one block to Adams, and west three blocks to the station. For cross-country bus enthusiasts, the Greyhound Station is at 631 W. Harrison, between Jefferson and Des Plaines. Take the El south from Loyola to Washington and State, transfer to the O'Hare/Douglas-Congress line and take any train west to the Clinton station. Walk one block south to Harrison and west on Harrison to the bus depot.

You can even get to Loyola's Medical Center by public transportation. Ride the "El" south from Loyola to Washington and State (pick up a transfer when you pay your fare). Take the pedestrian tunnel to the O'Hare-Congress/Douglas Line, and board an A train west all the way to the end of the line -- the Des Plaines station in Forest Park. Pick up a 308 bus at the station and the driver will deliver you to Loyola's front door.

For more information about bus and rapid transit destinations, fares, and schedules you can phone the Regional Transit Authority (which includes the CTA) at 836-7000.

If you're heading to O'Hare Airport by car, the fastest way is to take Peterson Ave. (one-half mile south of and parallel to Devon -- pick it up at Clark) west to Cicero Ave. Take Cicero south (left) to Foster Ave; west (right) on Foster to I-90 West (entrance just past Northwest Hwy); then I-90 to the O'Hare extension (I-190) and have a nice flight. This may not be a great route during evening rush hour, but the alternatives may not be any better. You can take Devon all the way out to Mannheim Rd. Go south (right) on Mannheim to I-190 and on to the airport. Midway Airport can be reached via Lake Shore Drive and I-55, then south on Cicero Ave.

One note of caution: Chicago is a big city; only New York and L.A. (barely) are home to more souls. Big cities are exciting and glamorous, but they can also be intimidating and disconcerting. While the Loyola neighborhood is not a particularly high crime area, no Chicago neighborhood is crime-free. Make sure your individual apartment and the entrance to your building have adequate security. Stay in groups after dark and know where you are. Riding the rapid transit late at night can be hazardous. If you're stranded, call a friend to pick you up or take a cab. If you're on or near campus late at night, call campus security and a staff member will be able to escort you home.
BIOLOGY GRADUATE STUDENT ASSOCIATION

The Biology Graduate Students Association (BGSA) was formed to create cohesiveness and mutual support among biology graduate students and to enhance the intellectual growth of graduate students and faculty. All biology graduate students, full-time and part-time, are automatically members of BGSA. There are no initiation rites or membership dues.

BGSA holds regular meetings to discuss both academic and "student life" issues. The organization elects officers and delegates to represent the students at Biology Faculty meetings and Biology Graduate Committee meetings (one delegate for each body). Active student participation in decisions related to the program is an important factor in the growth, success, and vitality of the program.

As a service to both undergraduates and graduate students, BGSA also collects and maintains files on doctoral programs in the biological sciences. A representative sample of program announcements is posted on the 3rd floor of Life Sciences Building.

BGSA actively promotes both academic and social interaction among students and between students and faculty. BGSA is also a valuable resource for new students unfamiliar with the area or simply unsettled. BGSA members can help you find reasonable and secure housing, direct you to good, cheap restaurants, and give you a tour of your new environment. BGSA frequently organizes outings to sports events, the beach, museums, etc. Parties and barbecues are often on the weekend agenda.

BGSA activities are sponsored in part by the student Activity fee. This fee is assessed by the University each semester, and is not covered by stipends. The fee goes to a good cause, however, as it helps to support BGSA.

You are a member of a group of supportive peers with similar goals and aspirations. Students are glad to offer any assistance you may need.
Department of Biology  
Loyola University Chicago  

Course Approval Form for _______ Semester 20__________

Name ____________________________________________________________

Social Security Number (PID) _______________________________________

Daytime Phone ____________________________________________________

Other Phone ______________________________________________________

Current Address __________________________________________________

To ensure that all students receive proper advising and that an appropriate record is made of same, this form must be filled out completely for a student to be allowed to register. When all signatures are affixed, return this form to the Biology Office.

<table>
<thead>
<tr>
<th>Department</th>
<th>Course Number</th>
<th>Section Number</th>
<th>Semester Hours</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please sign below as indicated:

Student ____________________________ Date _____________________

Advisor ____________________________ Date _____________________

Graduate Program Director ____________ Date _____________________
**Example Course Sequence**

**First Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Logic 495 (3 hrs.)</td>
<td>Electives/Research (0-6 hrs.)</td>
</tr>
<tr>
<td>Teaching 510 (1 hr.)</td>
<td>Teaching Bio 511 (2 hrs.)</td>
</tr>
<tr>
<td>Elective/Research (0-5 hrs.)</td>
<td>Totals hours (6-7 hrs.)</td>
</tr>
<tr>
<td>Total hours</td>
<td>(8-9 hrs.)</td>
</tr>
</tbody>
</table>

**Second Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grad. Seminar 501 (1 hr.)</td>
<td>Research 422 (2 hrs.)</td>
</tr>
<tr>
<td>Dept. Seminar 502 (1 hr.)</td>
<td>Teaching Bio 511 (2 hrs.)</td>
</tr>
<tr>
<td>Biostatistics 470 (4 hrs.)</td>
<td>Electives (4 hrs.)</td>
</tr>
<tr>
<td>Teaching Bio 511 (2 hrs.)</td>
<td>Total hours (7-8 hrs.)</td>
</tr>
<tr>
<td>Electives/Research (0-3 hrs.)</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td>(8-9 hrs.)</td>
</tr>
</tbody>
</table>

**First Year: 15 hrs.**  
**Second Year: 15 hrs.**  
**Total Program Hours = 30 hrs.**

- Biostatistics 470 is offered every other year. Scheduled to be taught fall 2007
- Students on University Scholarships must take Teaching Bio (511) two times
- Unsupported students, students supported through and advisors grant, and Students supported by their own grants take BIOL 511 one time.
Course and Degree Requirements

Required Courses:

1. Biostatistics – BIOL 470 (4 hrs.)
2. Scientific Logic – BIOL 495 (3 hrs.)
3. Grad Seminar – BIOL 501 (1 hrs.)
4. Department Seminar – 502 (1 hr.)
5. Teaching Biology – BIOL 510 (1 hr.)

Subtotal: 10 hrs. (8 hrs. completed)

6. Teaching Practicum – BIOL 511 (2 hrs.)
   University funded students must take 511 twice
   Grant funded or self-funded must take 511 once

University funded students: 10 + 4 = 14
Grant funded or self funded: 10 + 2 + 12

7. Research – BIOL 422 (3 -9 hrs., min of 3)


Total: 30 hrs.
Course Requirements for the M.S. Degree in Biology

Required Courses:


2. Scientific Logic & Critical Thinking – BIOL 495 (3 hrs. to be taken Fall of first year): 3 hrs.

3. Seminar in Biology (Graduate Seminar) – BIOL 501 (1 hr. to be taken Fall of second year): 1 hr. (note* BIOL 500 and 501 to be offered concurrently during Fall semester)

4. Department Seminar – BIOL 502 (Second year students, offered Fall semester): 1 hr.

5. Teaching Biology – BIOL 510 (Lecture): 1 hr.

Subtotal: 10 hrs.

6. Teaching Practicum - BIOL 511 – a) All university-funded students must take BIOL 511 twice:
   2 x 2 hrs. = 4 hrs.
   b) Non-university-funded students or students with externally funded grants, e.g., NSF, take BIOL 511 once: 2 hrs.

Subtotals: university funded students: 10 + 4 = 14 hrs.
Other students: 10 + 2 = 12 hrs.

Didactic Electives: 9-15 hrs.

Research:

BIOL 422: 3 – 9 hrs. Students must take at least 3 research credit hours, but students should use additional research credit hours to bring their total hours to 30.

TOTAL: 30 hrs.
DEPARTMENT OF BIOLOGY
M.S. DEGREE PROGRAM

NOTIFICATION OF STATUS
THE TEXT OF A THESIS

Student_______________________________________ S.S.N. # ______________________________

This form is for use by voting members of a thesis committee for notifying the student for the status of the Text (a.k.a. reader’s copy) of the thesis. The Graduate School requires that the committee indicate approval of the text to the student before the date of the oral defense is established. The oral defense must not be scheduled until the student receives notification from the committee that the text of the thesis is in its final state, with no major revisions necessary. For a three or four member committee, only one unfavorable vote (No. 3) is permitted for passage.

Note: Committee members may request no more than one month to review to text of a thesis.

1. ____ I approve the text of the thesis. The student may proceed to schedule an oral defense.

2. ____ I approve the text of the thesis, conditional upon the student revising the text as by my comments (see reverse or attached). The student may proceed to schedule the oral defense; the student shall complete the revisions prior to the oral defense.

3. ____ I do not approve the text of the thesis for the reasons stated (see reverse or attached). The student may not proceed to schedule an oral defense.

Committee Member Name__________________________________________________________
Signature_________________________ Date__________________________
# BALLOT FOR TEXT AND ORAL DEFENSE OF A THESIS/DISSERTATION

The Graduate School

Name: ___________________________________________________________  LUC ID#: _________________
Last First Middle
Program: _________________________________________________  Circle One: Thesis or Dissertation

**Instructions:**
This ballot is used to approve both the text and the final public oral defense of the thesis/dissertation (a public oral defense is not required for certain master’s programs).

**Committee Members:** All voting members must sign this ballot. You indicate approval of the text and oral defense of the thesis/dissertation by signing the top part of this form. A vote for distinction must be unanimous. You may indicate a dissenting vote by signing the bottom part of this form.

**Student:** Please retain a copy of this form for your records.

**GPD:** Upload this form into the database at gsps.luc.edu under Thesis/Dissertation Defense.

<table>
<thead>
<tr>
<th>Approved</th>
<th>Director’s Signature</th>
<th>Printed Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vote of Distinction:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approved</th>
<th>Reader’s Signature</th>
<th>Printed Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vote of Distinction:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approved</th>
<th>Reader’s Signature</th>
<th>Printed Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vote of Distinction:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approved</th>
<th>Reader’s Signature</th>
<th>Printed Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vote of Distinction:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dissenting Vote:</th>
<th>Reader’s Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Reader only)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GPD Approval:</th>
<th>GPD Printed Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service</td>
<td>Location</td>
<td>Phone</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>-----------------------------------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>Campus Safety</td>
<td>Granada Center</td>
<td>508-2394</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6427 N. Sheridan Rd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career Center</td>
<td>Sullivan Center</td>
<td>508-2874</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6339 N. Sheridan Rd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counseling/Psychological Services</td>
<td>1052 W. Loyola</td>
<td>508-2742</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3rd. Floor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency</td>
<td></td>
<td>44911</td>
<td></td>
</tr>
<tr>
<td>Financial Assistance</td>
<td>Sullivan Center</td>
<td>508-2744</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6339 N. Sheridan Rd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate School</td>
<td>Granada Center, 450</td>
<td>508-3396</td>
<td></td>
</tr>
<tr>
<td>International Students Services</td>
<td>6339 N. Sheridan Rd.</td>
<td>508-3899</td>
<td></td>
</tr>
<tr>
<td>Learning Assistance</td>
<td>Sullivan Center 101</td>
<td>508-2741</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6339 N. Sheridan Rd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence Life</td>
<td>1032 W. Sheridan Rd.</td>
<td>508-3300</td>
<td></td>
</tr>
<tr>
<td>Science Library</td>
<td>Information Commons</td>
<td>508-8450</td>
<td></td>
</tr>
<tr>
<td>Student Business Office/ Bursar</td>
<td>Sullivan Center</td>
<td>508-3180</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6339 N. Sheridan Rd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wellness Center</td>
<td>1052 W. Loyola Ave.</td>
<td>508-2530</td>
<td></td>
</tr>
<tr>
<td>University Ministry</td>
<td>Damen Student Center</td>
<td>508-2200</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2nd Floor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>