

FLORIDA INTERNATIONAL UNIVERSITY

DEPARTMENT OF BIOLOGICAL SCIENCES

GRADUATE POLICIES & PROCEDURES MANUAL

This graduate manual is intended for the informational use of graduate students in the Department of Biological Sciences only. Its purpose is to bring together pertinent information essential for Biology graduate students, and is meant to supplement and to clarify guidelines for graduate study published in various other FIU publications and is not intended as a substitute for any of those documents.

It is the student's responsibility to familiarize him or herself with these policies. Each student must read these policies and sign the statement below. This statement must be submitted to the Graduate Program Secretary for inclusion in the student's file.

I have received and read the Graduate Policies and Procedures Manual

Name

Signature

Date

GRADUATE POLICIES & PROCEDURES MANUAL

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Biological Science is an interdisciplinary field, drawing not only on classical biological themes, but also on a variety of allied scientific fields. At Florida International University, the Department of Biological Sciences offers M.S. and Ph.D. programs emphasizing research excellence in a variety of these fields.

~ADMISSION REQUIREMENTS

To be considered, the applicant must meet the entrance requirements set by the Admissions Office, as well as the Department. These include:

- a bachelor degree (B.A./B.S.) in a relevant discipline such as Biology, Botany, Zoology, Microbiology, Genetics or Chemistry
- a minimum GPA of 3.0 on a 4.0 scale during upper division course work, the last 60 hours of the undergraduate degree
- a combined verbal and quantitative score of at least 1000 on the Graduate Record Examination (GRE).
- letters of recommendation should to be sent to the Biology Graduate Program Director. *Two* letters of recommendation are required for M.S applicants and *three* letters are required for Ph.D. applicants
- a faculty sponsor, who must be a tenure-earning member of the Department of Biological Sciences to serve as major professor. *The major professor* will direct the student's research in consultation with the supervisory committee. Applicants are encouraged to contact faculty with similar research interests to be prospective faculty sponsors.
- all international applicants must demonstrate proficiency in English by taking the Test of English as a Foreign Language (TOEFL) *and* achieving a minimum score of 550.
- all international applicants seeking a teaching assistantship are required to demonstrate their spoken proficiency by earning a minimum score of 50 on the Test of Spoken English (TSE), if their native language is not English.
- all international applicants must complete a declaration and certification of financial ability to support themselves while a student (contact the FIU International Students Office for further information)

Any applicant who fails to meet these criteria may appeal the admission decision to the departmental graduate committee to be considered under the 10% waiver policy set by the State University System Board of Regents. This policy allows for exceptions to the above criteria for up to 10% of the graduate students admitted during a particular academic year.

Completed Application Forms, Fee, all test scores, & official transcripts should be sent to:

FIU Admissions Office, UP
PC140
Miami, FL 33199

Letters of Recommendation and Assistantship Application should be sent to:

FIU Dept of Biology, UP
Graduate Program Director
Miami, FL 33199

~APPLICATION PROCEDURES

Prospective candidates must submit an application for admission into the graduate program (application forms are available from the Biology Graduate Program Office or online at www.fiu.edu/~biology1/grad/). Completed application forms with a \$20.00 non-refundable application fee should be sent to:

Admissions Office
Florida International University
University Park PC140
Miami, Florida, 33199

Applicants must also arrange to have official transcripts from all colleges and/or universities attended and test scores (GRE, plus TOEFL is a foreign student and TSE if a foreign student applying for financial support) sent to the Admissions Office. Transcripts in a language other than English must be accompanied by an official English translation. Letters of recommendation (two for applicants to the M.S. program and three for applicants to the Ph.D. program) should be sent directly to the attention of the Biology Graduate Program Director at:

Florida International University
Department of Biological Sciences
University Park
Miami, FL 33199

Applications for teaching assistantships (available on the Biology Department's Graduate Program website at www.fiu.edu/~biology/grad/) should also be sent directly to the Biology Graduate Program Director.

Florida International University has a rolling admissions policy. When the Admissions Office receives the student's application, application fee, transcripts and GRE, TOEFL, and TSE scores, they forward the completed file

to the Biological Sciences department for evaluation. In addition to the information sent to Admissions, the student must have all letters of reference and a faculty sponsor for their application to be considered complete.

The Department of Biological Sciences has two deadlines for admission and the awarding of teaching assistantships. Applications for the Fall term with a teaching assistantship must be completed by the second Friday in February. Decisions on admission into the graduate program for Fall term will normally be made within six weeks of this deadline. Applications for Spring admission with a teaching assistantship should be completed by the last Friday in August.

~ADDITIONAL POLICIES

No student without an earned Masters degree in the Biological Sciences or a closely related discipline shall be admitted directly into the Ph.D. program with a GRE score of less than 1250 or an undergraduate GPA of less than 3.2. Special exceptions can be made with the unanimous vote of the graduate committee.

Once admitted to the M.S. program, under exceptional circumstances, students may apply to switch to the Ph.D. track during or after their second term of enrollment. Application is made to the Graduate Committee by submission of a memo from the student justifying the request, along with a memo of support by the major professor. Justification shall include a brief statement of the student's proposed research plan. Also at that time, documentation must be supplied that a doctoral committee, as defined in this manual, can be formed. This is accomplished by providing a completed Form C with all signatures as required for a Ph.D. committee. The graduate committee will consider the justification provided by the student and major professor, along with the student's performance in courses taken up to their graduate program.

THE M.S. PROGRAM

The M.S. degree is conferred on individuals in recognition of their demonstrated ability to master a specific field of knowledge and to complete a significant and original research project.

A "Term" is defined as spring, fall, and summer C semesters, with 3 terms offered per calendar year. It will be noted that failure to enroll in classes during the summer term does not postpone deadlines.

~SUPERVISORY COMMITTEE

The student and major professor will form a supervisory committee to direct the student's research. Supervisory committees should be formed by the end of the first term for all full-time students or prior to the completion of 12 credits for part-time students. A student's supervisory committee will be composed of no less than three members - two of which must be full-time tenure earning faculty members from the Department of Biological Sciences. The major professor will chair the research committee. Additional members may be selected from within or outside of the Department of Biological Sciences. Scientists that are not faculty members of FIU must submit a curriculum vitae for review by the departmental Graduate Committee. The curriculum vitae will be attached to Form C (formation of a supervisory committee) upon committee approval. Under no circumstances may an external research supervisor be the chair of the student's research committee. Potential external research supervisors may not be relatives or on-site paid supervisors of a student.

All committee members must meet the following requirements that were approved by faculty vote in the meeting of January 8, 1998. To serve as chair of a committee, a faculty member must:

- be a tenure-earning or tenured member of the Department of Biological Sciences.
- have specialized academic competence in the student's major field.
- have taught a graduate course in the last three years or had a graduate student who graduated in the last five years.
- have published an article in a peer reviewed journal in the last three years or had research funding during the last three years or applied for at least one grant in the last three years.

To serve as a committee member, the faculty member or external research scientist must:

- be approved by the graduate committee if an external research scientist
- have specialized academic competence relevant to one of the major emphases of the student's thesis project.

- have taught a graduate course in the last three years or published an article in a peer reviewed journal in the last three years.

These guidelines may not adequately cover all situations. Therefore, faculty members may make a written appeal to the graduate committee. If necessary, an appeal of the graduate committee's decision will be made to the entire faculty.

Students should play an active role in the selection of their supervisory committee members and must arrange to meet formally with their supervisory committee at least once a year to insure that each committee member is fully informed of the student's progress.

The research committee functions:

- to advise the student in all academic and research matters
- formulate a program of study (not required but recommended for M.S. students)
- approve the thesis proposal
- review progress on the thesis research
- prepare and conduct the qualifying examination
- administer the defense of thesis
- render final approval of the thesis

~RESEARCH PROPOSAL

During their first term, students should write a brief outline of their proposed research project. Full-time students should submit this preliminary proposal to their supervisory committee no later than the beginning of their second term; part-time students should submit their proposals upon completion of nine credits. Students must prepare a formal version of their research proposal and distribute it to each member of the supervisory committee prior to the end of their fourth term in the program, or upon completion of 24 credits. A five-page summary of the preliminary proposal must be submitted with Form C. The student should submit the formal version of the proposal prior to the qualifying examination.

The formal proposal should follow the general guidelines outlined in the Regulations for Thesis and Dissertation Preparation Manual (available in the Office of Graduate Studies website at www.fiu.edu/~gradstud/ThesisManual.pdf) and should contain the following sections:

1. Introduction - statement of the problem/purpose and a review of prior relevant work
2. Materials & Methods - a technical discussion of the methods and approaches to be used in the research
3. Preliminary Results/Feasibility
4. Program Schedule

5. References

6. a description of any special budgetary requirements necessary to carry out the proposed research.

Sections 1-3 of the formal proposal shall be a minimum of 8 pages double spaced with 12 pt font (approximately 5 pages, single spaced), OR consistent with guidelines established by the National Science Foundation program for Dissertation Improvement Grants or comparable programs at the National Institutes for Health, at the discretion of the student's advisory committee. All Ph.D. candidates are encouraged to submit this proposal to an appropriate funding agency, as determined by the faculty supervisory committee.

Committee members should review the formal proposal and return it to the student along with their comments - no later than two weeks from the date of receipt of the formal research proposal. After revisions, the student should resubmit the proposal to all committee members for final approval. If necessary, the major professor should poll the committee regarding the acceptability of the revised proposal. If deemed unacceptable to one or more of the committee members, the student or the student's major professor should contact the pertinent committee member(s) to determine the points necessary for approval. If the matter cannot be satisfactorily resolved, the student and major professor should take the issue to the Graduate Committee for mediation.

The student is responsible for scheduling the presentation of the proposal at a time convenient to the supervisory committee members and the faculty of the Biological Sciences department, so that it truly is a seminar open to the public. The student must also adequately advertise the proposal seminar at least one week in advance of the presentation. The term after the proposal is successfully presented, the student should register for BSC 5931 Thesis Proposal Seminar. After successful completion of the proposal seminar, the major professor should send a memo (with the proposal seminar announcement attached) to be put in the student's file. (See memo forms at end of document)

Immediately following presentation of the proposal seminar and a public question period, the public audience shall be asked to leave and the committee and major professor will remain for a defense of the proposal and research plan. At the proposal defense, the student will be tested by the committee on both the technical aspects of the proposed research and the scientific literature relevant to the work. The seminar room should be reserved for two hours to allow sufficient time for the entire proposal seminar, including the question-answer period.

~COURSES

A detailed course of study should be determined for each student by the supervisory committee as part of its first formal meeting. The course of study should include all courses required by the Department, courses that rectify weaknesses in the student's background and those considered essential for the student's particular program of study. Formal course requirements should be met as early as possible and all remedial courses needed to bring the student up to the level of graduating senior undergraduates should be taken during the first two terms the student is in the program. Graduate assistants may not register for undergraduate credits (4000 or lower) using their tuition waiver. Such remedial courses must be paid for by the student.

Core courses required of all M.S. students include: Thesis Proposal Seminar (BSC5931, 1 credit); Thesis Defense Seminar (BSC 5975, 1 credit); Introduction to Biological Research (BSC 6457; 3 credits); Master's Thesis (BSC 6971; 6 credits) and workshops/ laboratories (a minimum of 4 credits and 3 separate courses). Students must first present their graduate proposal seminar and sign up for credit in Graduate Seminar Proposal the term after the presentation. The student must take at least 19 credits of electives from courses offered by the Department of Biological Sciences, which includes BSC 6916 Graduate Student Research.

A grade of "C" or higher must be achieved in all courses with a cumulative minimum GPA of 3.0 to remain in the graduate program. A maximum of six credits may be taken at the 4000 level (at the discretion of the student's supervisory committee), but graduate assistants may not register for undergraduate courses using their tuition waiver.

~LANGUAGE REQUIREMENT

Reading proficiency in one language other than English *in which there is scientific literature* must be demonstrated. The language requirement may be met by one of several means.

- Successful completion of a written examination in a foreign language approved by the student's supervisory committee. This examination is to be administered by the Department of Modern Languages and must be at a level consistent with technical materials published in that language.
- Certification of language proficiency at the graduate level from another institution *through either courses or examination* or through satisfactory completion of the Graduate Student Foreign Language Test (administered by Educational Testing Service, Princeton, NJ 08540) are also acceptable means of satisfying the foreign language requirement.
- Students may substitute six credits of *graduate statistics*, Computer Programming or Mathematics beyond Calculus II for the foreign language requirement if acceptable to the advisory committee.

The major professor should file official notification of successful fulfillment of the foreign language requirement. This may be in the form of either:

- a letter from the Department of Modern Languages
- or certification of language proficiency from another institution
- or acceptable scores on the Graduate Student Foreign Language Test
 - or a statement from the research committee stating that the student successfully completed the courses in graduate level statistics, computer programming or mathematics.

International students fulfill the language requirement with a score of 550 or greater on the TOEFL.

~TRANSFER OF GRADUATE CREDIT

M.S. programs may accept six semester hours of graduate course credit earned from another institution beyond the bachelor's degree, excluding graduate research and master's thesis course credits.

~THESIS/DISSERTATION COMMITTEE APPOINTMENT - Form C

Form C should be completed and submitted to the Graduate Studies Office immediately upon formation of a supervisory committee. Form C must be accompanied by a five-page summary of the proposed thesis research in the format required by the Graduate Division (see the Graduate Division website or the example in this manual for the correct format).

The composition of a supervisory committee may need to be changed at some point during a student's program of study. If this should become necessary, the major professor must submit to the Graduate Committee a written request explaining the reasons for the change. Should the student request changing of the major professor, the student should submit a written request to the Graduate Committee for approval. Approved requests will require students to file a revised THESIS/DISSERTATION COMMITTEE APPOINTMENT - Form C. If the thesis research has changed significantly, a new five page summary of the thesis research should be submitted with the revised Form C.

In addition to Form C, a separate Form C' must be submitted to the Dean of the College of Arts and Sciences (see the Appendix of Forms in this manual).

~QUALIFYING EXAMINATION

M.S. candidates must take and pass a qualifying examination in order to demonstrate adequate progress toward degree. Full-time students should complete the examination by the end of their first year in the program (first three terms, including summer term); part-time students must complete the examination before 18 credits have been completed. The exam will cover at least three subject areas specified by the

student's supervisory committee. The student must be informed of the subject areas at least one month prior to the date of the examination. The form and content of the qualifying examination are determined by the student's supervisory committee.

A unanimous decision by the supervisory committee in all subject areas examined is required to successfully pass the qualifying examination. Failure in any examination area constitutes a failure. Passing of the qualifying examination may not be conditional. The student either passes or fails on the performance on the exam and can not be passed upon the condition of satisfactory completion of courses or submission of research papers.

On successful completion of the qualifying examination, a written summary signed by the major professor should be placed into the student's graduate file. (See student progress memos)

Students failing their first qualifying examination can petition the Graduate Committee for a second examination. If the petition is granted, the second examination must be taken no earlier than one month and no later than four months after the first examination. The second examination may be either oral or written at the discretion of the student's supervisory committee. Students who fail the second examination are dismissed from the program.

MS students earning a grade of A (not A-) in a two-semester area core course sequence (yet to be developed by the Integrative Biology group) and Introduction to Biological Research (BSC 6457) may waive the comprehensive exam requirement and proceed to the proposal seminar, with approval of the thesis committee. A memo stating this option and indicating the student earned the appropriate grades must be placed in the student's file by the major professor. Listed below are the acceptable core courses:

- Ecology and Organizational Biology group: PCB 5423, PCB 5443.
- Molecular and Cell Biology group: PCB 6025, PCB 6026.

~THESIS

A thesis must be prepared and submitted in accordance with the guidelines and deadlines established by the University, the Graduate Division and the College of Arts and Sciences. These guidelines are set forth in the Thesis and Dissertation Preparation Manual available from the Graduate Studies Office or at the Graduate Division website at www.fiu.edu/~gradstud/ThesisManual.pdf

~REQUEST FOR THESIS/DISSERTATION DEFENSE (FORM D)

The thesis defense is a university requirement and, thus, the defense must be scheduled and held to comply with University deadlines. The Graduate Division publishes their deadlines for submission of Form D on their website. The College of Arts and Sciences publishes both the Graduate Division and the College deadlines on

their website which can be accessed from the Biological Sciences Graduate Program website. For example, for Spring 1999, the Form D deadline for the College of Arts and Sciences was March 16 and for the Graduate Division, March 19. The defense itself had to be held by April 2 and at least two weeks after filing Form D. Classes ended April 16. Form F and the final copy of the thesis had to be submitted to the College by April 16 and to the Graduate Division by April 23. The Dean of our College has a zero tolerance policy on the College deadlines. Thus, the student who does not comply with these deadlines may be forced to enroll for another term to be able to graduate.

Form D and a copy of the thesis defense announcement must be submitted by the deadlines. Form D states "The undersigned members of the Thesis/Dissertation Committee request that the University community be notified that [student name] candidate for the M.S. degree stands ready to defend his/her thesis. Each Committee member hereby certifies that he/she has carefully reviewed the thesis/dissertation and considers it to be suitable for defense." Thus, the student must provide his/her committee with sufficient time to read and comment on the thesis before the Form D submission deadline. Sufficient time is usually two weeks.

~RESULTS OF THE THESIS/DISSERTATION DEFENSE (FORM E)

Form E must be completed by the student and submitted to the Graduate Studies Office upon successful defense of thesis.

~FINAL SUBMISSION OF THE THESIS (FORM F)

One bound copy of the completed and approved thesis must be presented to the Department of Biological Sciences along with two unbound versions for the FIU Library (submitted to the Graduate Studies Office) in accordance with the College of Arts and Sciences and Graduate Division deadlines.

~ACTIVE STATUS AND TIME LIMITATIONS

Active status entitles students to utilize the University's resources. To maintain active status in the M.S. program, students must register for a minimum of one credit per term, summer term included. Lapses in enrollment for two or more consecutive terms will result in the student being dropped from the program. All requirements for the M.S. degree, including the successful defense of a thesis, must be completed within six years of first enrollment in the program, inclusive of any leaves of absence or other interruptions of active student status. Students who do not complete their thesis within this time period may apply for an exception to this rule by filing a Request for Exception form to the Dean of the Graduate Division.

THE Ph.D. PROGRAM

The Ph.D. is conferred on individuals in recognition of their demonstrated ability to master a specific field of knowledge and to conduct significant, independent, original research. The program of study leading to the Ph.D. must include a comprehensive and coordinated plan of study designed to provide a strong background in a specific discipline in the Biological Sciences.

A "Term" is defined as spring, fall, and summer C semesters, with 3 terms offered per calendar year. It will be noted that failure to enroll in classes during the summer term does not postpone deadlines.

~RESEARCH COMMITTEE

At the end of the second term or no later than the end of the first year of study (third term, counting the summer term), the student should consult with his major professor on the selection of a research committee to consist of at least five faculty members. The major professor, who holds a regular, tenure-earning faculty appointment in the Department of Biological Sciences at FIU and is eligible to chair a research committee, will chair the research committee. At least three members of the supervisory committee (including the chair) must be full-time tenure-earning faculty members from the Department of Biological Sciences. At least one committee member must hold a regular faculty appointment in another department at FIU. The remaining research committee members can be selected from among other members of the Biology faculty or professionals from external agencies. Scientists that are not faculty members of FIU must submit a curriculum vitae for review by the departmental graduate committee. The curriculum vitae will be attached to Form C (formation of a supervisory committee) upon committee approval. Under no circumstances may an external research supervisor be the chair of the student's research committee. Potential external research supervisors may not be relatives or on-site paid supervisors of a student.

All committee members must meet the following requirements which were approved by faculty vote in the meeting of January 8, 1998. To serve as chair of a committee, a faculty member must:

- be a tenure-earning or tenured member of the Department of Biological Sciences.
- have specialized academic competence in the student's major field.
- have taught a graduate course in the last three years or had a graduate student who graduated in the last five years.

- have published an article in a peer reviewed journal in the last three years or had research funding during the last three years or applied for at least one grant in the last three years.

To serve as a committee member, the faculty member or external research scientist must:

- be approved by the graduate committee if an external research scientist.
- have specialized academic competence relevant to one of the major emphases of the student's thesis project.
- have taught a graduate course in the last three years or published an article in a peer reviewed journal in the last three years.

These guidelines may not adequately cover all situations. Therefore, faculty members may make a written appeal to the graduate committee. If necessary, an appeal of the graduate committee's decision will be made to the entire faculty.

The research committee functions:

- to advise the student in all academic and research matters
- formulate a program of study
- approve the dissertation proposal
- review program progress on the dissertation research
- prepare and conduct the examination for candidacy qualifying
- administer the defense of dissertation
- render final approval of the dissertation

~THESIS/DISSERTATION COMMITTEE APPOINTMENT - FORM C

No later than the end of the first year of study, the student should consult with his major professor on the selection of a research committee to consist of at least five faculty members. Form C should be completed by the student and submitted to the Graduate Studies Office immediately upon formation of a research committee. Form C must be accompanied by a five-page summary of the proposed thesis research in the format required by the Graduate Division (see the Graduate Division website or the example in this manual for the correct format).

The composition of a supervisory committee may need to be changed at some point during a student's program of study. If this should become necessary, the major professor must submit to the Graduate Committee a written request explaining the reasons for the change. Should the student request changing of the major professor, the student should submit a written request to the Graduate Committee for approval. Approved requests will require students to file a revised THESIS/DISSERTATION COMMITTEE APPOINTMENT - Form C. If the thesis research has changed significantly, a

new five-page summary of the thesis research should be submitted with the revised Form C.

In addition to Form C, a separate Form C' must be submitted to the Dean of the College of Arts and Sciences (see the Appendix of Forms in this manual).

~RESEARCH PROPOSAL

During their first term, students should write a brief outline of their proposed research project. Full-time students should submit this preliminary proposal to their supervisory committee no later than the beginning of their second term; part-time students should submit their proposals upon completion of nine credits. Students must prepare a formal version of their research proposal and distribute it to each member of the supervisory committee prior to the end of their sixth term in the program, or upon completion of 24 credits. A five-page summary of the preliminary proposal must be submitted with Form C. The student should submit the formal version of the proposal prior to the qualifying examination.

The formal proposal should follow the general guidelines outlined in the Regulations for Thesis and Dissertation Preparation Manual (available in the Office of Graduate Studies website at www.fiu.edu/~gradstud/ThesisManual.pdf) and should contain the following sections:

1. Introduction - statement of the problem/purpose and a review of prior relevant work
2. Materials & Methods - a technical discussion of the methods and approaches to be used in the research
3. Preliminary Results/Feasibility
4. Program Schedule
5. References
6. A description of any special budgetary requirements necessary to carry out the proposed research.

Sections 1-3 of the formal proposal shall be a minimum of 20 pages double spaced with 12 pt font (approximately 11 pages, single spaced), OR consistent with guidelines established by the National Science Foundation program for Dissertation Improvement Grants or comparable programs at the National Institutes for Health, at the discretion of the student's advisory committee. All Ph.D. candidates are encouraged to submit this proposal to an appropriate funding agency, as determined by the faculty supervisory committee.

Committee members should review the formal proposal and return it to the student along with their comments - no later than two weeks from the date of receipt of the formal research proposal. After revisions, the student should resubmit the proposal to all committee members for final approval. If necessary, the major professor should

poll the committee regarding the acceptability of the revised proposal. If deemed unacceptable to one or more of the committee members, the student or the student's major professor should contact the pertinent committee member(s) to determine the points necessary for approval. If the matter cannot be satisfactorily resolved, the student and major professor should take the issue to the Graduate Committee for mediation.

The student is responsible for scheduling the presentation of the proposal at a time convenient to the supervisory committee members and the faculty of the Biological Sciences department, so that it truly is a seminar open to the public. The student must also adequately advertise the proposal seminar at least one week in advance of the presentation. The term after the proposal is successfully presented, the student should register for BSC 5931 Thesis Proposal Seminar. After successful completion of the proposal seminar, the major professor should send a memo (with the proposal seminar announcement attached) to be put in the student's file. (See memo forms at end of document)

Immediately following presentation of the proposal seminar and a public question period, the public audience shall be asked to leave and the committee and major professor will remain for a defense of the proposal and research plan. At the proposal defense, the student will be tested by the committee on both the technical aspects of the proposed research and the scientific literature relevant to the work. The seminar room should be reserved for two hours to allow sufficient time for the entire proposal seminar, including the question-answer period.

~COURSES – PROGRAM OF STUDY

The primary requirement for the Ph.D. degree is the submission and defense of the dissertation which is based on original research in the area of specialization acceptable to the Ph.D. student's supervisory committee.

Students must complete a "Program-of-Study" (available from the Biology Graduate Program Secretary) designed by the supervisory committee to support the dissertation research and to provide a strong and comprehensive background in the Biological Sciences. All 90 credit hours must be detailed in the Program of Study, including any transfer credits. A minimum of 90 semester credits of graduate course work beyond the baccalaureate is required including a minimum of 24 credits in dissertation research.

Required courses for all Ph.D. students include: Dissertation Proposal Seminar (BSC7981, 1 credit); Supervised Teaching in Biology (BSC 5945; 2 credits); Ph.D. Dissertation (BSC 7980; 24 credits); Dissertation Defense Seminar (BSC7982, 1 credit); and workshops/laboratories (a minimum of 4 credits and *at least 3* separate courses). The student must take at least 8 credits of electives from courses offered by the Department of Biological Sciences, which includes BSC 6916 Graduate Research.

Introduction to Biological Research (BSC 6457; 3 credits) is strongly recommended for Ph.D. students lacking a formal introduction to research in the Biological Sciences.

A grade of "C" or higher must be achieved in all courses with a cumulative GPA of 3.0 or higher for the 90 credits.

~ LANGUAGE REQUIREMENT

Reading proficiency in one language *in which there is scientific literature* must be demonstrated. The language requirement may be met by one of several means:

- Successful completion of a written examination in a foreign language approved by the student's supervisory committee. This examination is to be administered by the Department of Modern Languages and must be at a level consistent with technical materials published in that language.
- Certification of language proficiency from another institution through either courses or examination or through satisfactory completion of the Graduate Student Foreign Language Test (administered by Educational Testing Service, Princeton, NJ 08540) are also acceptable means of satisfying the foreign language requirement.
- Students may substitute six credits of *graduate statistics*, Computer Programming or Mathematics beyond Calculus II for the foreign language requirement if acceptable to the advisory committee.

Official notification of successful fulfillment of the language requirement should be placed into the student's graduate file by the major professor. This may be in the form of a letter from the Department of Modern Languages, certification of language proficiency from another institution, acceptable scores on the Graduate Student Foreign Language Test or a statement from the research committee stating that the student successfully completed the courses in graduate level statistics, computer programming or mathematics. (See student progress memos)

~SUPERVISED TEACHING

The ability to teach at the University level is an important skill that should be encouraged in all graduate students. For this reason, all Ph.D. students are required to perform two terms of supervised teaching or document an equivalent amount of teaching experience.

~TRANSFER OF GRADUATE CREDITS

A maximum of 36 semester hours earned elsewhere as a graduate degree-seeking student may be accepted toward the Ph.D. degree. Up to six thesis credit hours may be transferred to a Ph.D. program only if they were part

of an earned degree. A maximum of six semester hours of graduate credit earned from another institution in a non-degree seeking status may be transferred.

~CANDIDACY EXAMINATION-Form B

A candidacy examination is required of all students working toward the Ph.D. This examination should be completed after a minimum of 18 credits in residence and no later than the sixth term of study (including the summer term). The written and oral sections of the examination will be conducted and evaluated by the supervisory committee and will test the student's competence and mastery of his or her field of specialization. A unanimous decision by all committee members is required to successfully pass the candidacy exam. Failure to pass one or more subject areas of the candidacy examination constitutes a failure. Passing of the qualifying examination may not be conditional. The student either passes or fails on the performance on the exam and cannot be passed upon the condition of satisfactory completion of courses or submission of research papers.

A failure on the first attempt will result in one of three paths:

1. dismissal from the program
2. reexamination
3. application to the departmental Graduate Committee in conjunction with the supervisory committee for transfer to the MS program

A request for re-examination must be made by the student and the supervisory committee. If approved by the Graduate Committee, re-examination may be scheduled after a minimum of one and a maximum of two terms have passed. Only one re-examination will be allowed. Failure of the re-examination results in dismissal from the Graduate program.

~ADMISSION TO CANDIDACY

A graduate student is not a candidate for the Ph.D. degree until granted formal admission to candidacy - Form B. Such admission requires approval of the student's supervisory committee, the Department Chairman, the Dean of the College of Arts & Sciences, and the Dean for Graduate Studies. Approval is based on:

1. completion of course work specified in the Program of Study;
2. successful completion of the Candidacy Examination;
3. approval of a Dissertation topic; and
4. a demonstrated reading proficiency in one foreign language.

A student may not enroll for dissertation credits until the term after he/she is admitted to candidacy. At least two terms must elapse between admission to candidacy and awarding of the Ph.D. degree.

~DISSERTATION

A dissertation is required of all candidates for the Ph.D. degree and must conform to the format outlined in the Regulations for Thesis and Dissertation Preparation Manual available to students in the Graduate Studies Office. Once enrollment in Ph.D. Dissertation has been initiated, continual registration for at least three credits each term (including Summer term) must continue until the dissertation requirement is fulfilled.

After submission of the dissertation and completion of all other prescribed work for the Ph.D. degree, the candidate will give a public presentation and be given a final oral examination by the supervisory committee. The examination will be based primarily on the dissertation research and related topics. A student who fails the dissertation defense may be allowed a second defense, on recommendation of the supervisory committee. If re-examination is necessary, the examination cannot be held earlier than six months or more than one year from the date of the first examination.

~ACTIVE STATUS AND TIME LIMITATIONS

Continuous registration will be required for all students accepted into the Ph.D. program. Full time students must register for at least nine credits per term during the regular academic year, and six credits during the summer term. Once students have advanced to candidacy, a minimum of three hours per term is required to maintain active status in the program. At the Ph.D. level, all requirements, including the successful defense of a dissertation must be completed within nine years of first enrollment in the Ph.D. program, inclusive of any leaves of absence or other interruptions of active student status. Students who do not complete their dissertation within this time period may apply for an exception to this rule by filing a Request for Exception form to the Dean of the Graduate Division.

GRADUATE REVIEW

Each year, each student will participate in the Graduate Review. During the first four weeks of the spring term, the student must schedule a meeting with their graduate reviewer, a member of the Graduate Committee. Graduate reviewers will be assigned in the fall term and the student will receive a memo describing the status of the student's file prior to the first week of classes in the spring term. Students who receive unsatisfactory reviews will be recommended for dismissal from the program. Students who have been dismissed must apply for readmission if they wish to complete their degree. Students who are supported by a teaching assistantship or research assistantship must obtain a satisfactory review to maintain their support for the next academic year.

Below are the guidelines used by the graduate reviewers. These guidelines have been provided so students can prepare themselves and their major professors adequately for the graduate review.

Guidelines for Students and Graduate Committee Reviewers

For all students:

All students must submit a CV for their files. This CV will be updated yearly at each graduate review and will be used to document students' participation in scientific congresses, the scientific literature and any special awards.

For first year MS students (started in Fall term):

This is the ideal case that would be considered excellent progress. The student should have:

- formed a committee
- filed form C with the five page research proposal summary
- met with the committee
- scheduled the qualifying examination completed the foreign language requirement

Students who have not formed a committee should be given an unsatisfactory. The new form C requires a summary of the research proposal, so that the student must also have some sense of what their research topic will be before forming the committee. To make up the unsatisfactory, they should form a committee, file form C, have the committee meet and schedule a qualifying examination and thesis proposal seminar. The qualifying examination and thesis proposal seminar do not have to be completed before the end of the spring term.

For first year PhD students (started in Fall term):

This is the ideal case that would be considered excellent progress. The student should have:

- formed a committee
- filed form C with the five page research proposal summary
- met with the committee
- completed a program of studies
- completed the foreign language requirement
- completed or scheduled the teaching requirement
- discussed with the committee the qualifying examination and thesis proposal seminar

Students who have not formed a committee should be given an unsatisfactory. The new form C requires a summary of the research proposal, so that the student must also have some sense of what their research topic will be before forming the committee. To make up the unsatisfactory, the student should form a committee, file form C, have the committee meet and discuss the qualifying examination and thesis proposal seminar. The qualifying examination and thesis proposal seminar do not have to be scheduled to receive a satisfactory.

For all first year students:

All students should complete their language requirement by the end of the first year if they are fulfilling it by examination. If they are fulfilling it by statistics or computer classes, they must have made a reasonable schedule to complete it by the end of the second year.

Students who have formed a committee but not met with the committee should be given an unsatisfactory.

Second year and beyond MS students:

Students who began the program prior to the Fall term already should have formed a committee, met with the committee, completed their foreign language requirement, taken their qualifying examination. By the end of their fourth term, they should also have completed their formal proposal and presented their thesis proposal seminar. Students who have not met these requirements should be given an unsatisfactory and have until the end of the spring term to complete them.

Students who began the program prior to the fall term and who have met all the above requirements should be asked when they are planning on graduating. Ideally, MS students should be planning on graduating by the end of their second year in the program. If they are not planning on graduation, they should have a committee meeting so their committee can evaluate their progress. The student will receive an unsatisfactory, which can be made up by having a committee meeting and presenting a memo from their committee that evaluates their progress and estimates the date of graduation.

For students who are planning to graduate, make them aware of the deadline dates for application for graduation, submission of Form D, etc. which are available at the FIU grad division web site.

Basically, any student who isn't planning on graduating and hasn't had a committee meeting since the last graduate review should be given an unsatisfactory until they have met with their research committee.

Second year and beyond PhD students:

Students who began the program prior to the Fall term already should have formed a committee, met with the committee, completed their foreign language requirement, completed their teaching requirement, taken their qualifying examination, completed all the required courses for the program as described in the program of studies, completed their formal proposal and presented their dissertation proposal seminar. Basically, PhD students who have advanced to candidacy by the spring term of their second year are making excellent progress. Students who have not met these requirements should be given an unsatisfactory and have until the end of the spring term to complete them.

Students who have advanced to candidacy should have met with their committee and received an evaluation of their progress toward degree in the form of a memo from the committee. (See student progress memo) Any student who isn't planning on graduating and hasn't had a committee meeting since the last graduate review should be given an unsatisfactory until they have met with their research committee. Students will have until the end of the term to make up the unsatisfactory.

FINANCIAL ASSISTANCE

Various forms of financial assistance are available to graduate students at FIU. Recommendations for aid as well as admission into the program are based on the initial ranking of new students by their GRE and GPA scores. In addition, graduate students are encouraged to apply for external support for their graduate work (e.g., Sigma Xi, NSF, etc.). Proposals to funding agencies must have the approval of the Department of Biological Sciences and, in some cases, the Division of Sponsored Research.

Information regarding financial assistance may be obtained from the Biology Graduate Program office or from the Graduate Division website. Application for assistantships (i.e., teaching or research assistantships found at the website www.fiu.edu/~biology1/grad/prospective.htm) must accompany applications for admission to the graduate program. Graduate stipends for TA's and RA's and some tuition fee waivers (partial and full) are available to eligible students.

Graduate assistantships are renewed each term. While we expect that an assistantship will be renewed for up to two years for MS students or four years for Ph.D. students, satisfactory progress toward the degree is a condition of renewal. Students will be notified before August 1 of each academic year regarding renewal of an assistantship, amount of stipend/tuition waiver and responsibilities for the following term.

GUIDELINES FOR GRADUATE ASSISTANTSHIPS

Research assistantships are intended to:

- provide financial support for graduate students working toward their M.S. or Ph.D. degrees.
- give graduate students the opportunity to obtain university research experience under the guidance of departmental faculty. Specific research duties are assigned by the major professor.

Teaching assistantships are intended to:

- provide financial support for graduate students working toward their M.S. or Ph.D. degrees.
- give graduate students the opportunity to obtain university teaching experience under the guidance of departmental faculty. The Teaching Assistant Coordinator in consultation with faculty and TA's determine specific course assignments.
- enable the department to meet the teaching demand of multiple-section high-enrollment laboratory courses.

~DUTIES OF TA'S

Teaching Assistants teach 20 hours per week, usually 3 sections of a laboratory class during the academic year. Students will be responsible for two laboratory sections in the summer. Students will be paid in bi-weekly paychecks. Assigned duties may include:

- supervision of 3 laboratory sections per week. Since some laboratory courses meet for differing lengths of time, alternate duties may be added or subtracted to ensure that TA effort in all courses is equivalent.
- grading of lecture- or laboratory-related quizzes, exams, reports, etc.
- attendance at weekly laboratory meetings and/or course-related lectures
- preparation of laboratories
- consultation and office hours with students
- proctoring of lecture exams
- attending workshops and meetings held by the department or other entities in order to train in areas appropriate to TAs.

New teaching assistants are required to enroll in BSC 5945 - Teaching Biology (1-2 credits). This clinic meets the week before the beginning of the Fall Semester. The course continues with once-a-week seminars on teaching issues throughout the term and all TAs are required to attend. Students may also attend several departmental seminars designed to improve effective communication and teaching skills.

~SPECIAL CONDITIONS

Teaching Assistants who sign a contract with the University must adhere to the following conditions:

- a graduate assistant appointment is contingent on full time enrollment and satisfactory academic performance
- a graduate assistant will be responsible to teach undergraduate laboratory sections in Biology for up to 20 hrs/week
- a graduate assistant must agree not to accept employment outside of the University unless written permission is obtained from the Graduate Program Director, as approved by the Graduate Committee

~RESPONSIBILITY OF SUPERVISING FACULTY

The role of faculty members in courses requiring TA's is as a mentor. Faculty should strive to make the laboratory portion of their courses run smoothly by ensuring:

- that the material to be presented by the TA is clearly defined and available well in advance of the laboratory
- that TA's are properly briefed on the lab techniques and expected results for each laboratory
- that all reagents and supplies have been adequately prepared and are available for the TA before a laboratory begins.

In the case of General Biology (BSC 1010 & 1011) Human Biology (BSC 2023), Introductory Marine Biology (MCB 2003), and Introductory Botany (BOT 1010), faculty and TA's are expected to work closely with the Laboratory Coordinator.

~EVALUATION OF TA'S

TA's receive an evaluation from students in every laboratory that they teach. Copies of the student evaluations and any student comments are also added to the student's file and sent to the faculty member that supervised the TA within 60 days of the end of the term. Graduate students who have also enrolled in BSC 5945 (Teaching Biology) to fulfill the teaching requirement for the Ph.D. degree will also receive a P/F grade based on their performance in teaching. The TA Coordinator and faculty members are also encouraged to submit to the Biology Graduate Program Director written evaluations of the TA's involved with their courses. These evaluations are added to the student's file.

~TA/FACULTY GRIEVANCES

On rare occasions disputes between TA's and faculty members will arise. Changes in TA assignments or suggestions to resolve conflicts should be made to the Biology Graduate Program Director, or a member of the Graduate Committee. Failure of this committee to resolve a conflict to the satisfaction of all parties will necessitate the formation of a temporary "Graduate Assistant Committee". This temporary committee will be composed of: two representatives from the Biology faculty (elected by the faculty), one of whom will be elected chair; the Biology Graduate Program Director as ex-officio member; two graduate student representatives (elected by fellow graduate students); one faculty member from outside of the department (selected by the committee chairperson).

A majority vote by this committee will resolve complaints. This committee may also make recommendations to the Graduate Committee and the Department concerning issues of TA welfare. Should TA's at FIU join the state Teaching Assistant Union, a University-wide Grievance Committee would take the place of this temporary committee.

GENERAL INFORMATION

~OBTAINING FLORIDA RESIDENCY

To be considered for Florida residency, the student must be a U.S. citizen or legal alien, and independent (i.e. your parents do NOT claim you on their taxes and that you file your own taxes). To apply, the following information and any other documentation proving your ties to the state of Florida must be taken to the Registrar's Office to be reviewed. All of the following documents must be dated back one year from the time that you apply. Therefore, it is extremely important to get the following items.

Before Your First Semester Begins.

- Proof of Residency:
1. Florida Driver's License
 2. Voter's Registration Card
 3. Florida Vehicle's Registration
 4. Declaration of Domicile (from a Dade County Court and signed by a Notary Public of Florida)
 5. Proof of Independence (ex. Tax forms)
 6. Permanent Employment (ex. show contract)
 7. Residence during periods of non-enrollment
 8. Lease/Own Home/Own Property

9. Checking Account with a Florida Bank

Obtaining Florida residency is mandatory for any student who is seeking financial support from the department. The department will only pay a U.S student's out-of-state tuition for one academic year; otherwise, the increased fees are the burden of the student.

~WITHDRAWAL/LEAVES OF ABSENCE/READMITTANCE

Admitted graduate students who have not been registered for two consecutive terms, including the summer session, will be dropped from the graduate program and must apply for re-admission through the Admissions Office. Graduate students who withdraw voluntarily from their graduate studies are required to apply for readmission under the admission regulations in force at the time of reapplication. Forms for readmission and leave of absence are available in the Biology Graduate Program office.

If a student finds it necessary to be excused from registration in a graduate degree program for *two* or more consecutive terms he/she must formally request a leave of absence from the graduate program. Leave will be granted only under exceptional circumstances. When the student returns from a leave of absence, decisions concerning previous or current programs of study will be mutually agreed upon by the student's supervisory committee and the student.

A leave of absence does not extend the amount of time allotted for degree completion. The six years for the MS and nine years for the PhD are calculated from the entry date in the program and do not take absence from the program into account.

~RESEARCH AND PATENTS

The results of a graduate student's research could lead to a patent and the payment of royalties. The University claims no rights to patent royalties if the research is performed in a laboratory outside of the University under close cooperation with an outside advisor. The University insists, however, that the student receive a fair share of any financial benefits from such a patent. If the patented work was done in a University laboratory with the frequent consultation of regular faculty, the University may claim a portion of the royalty. Negotiations on such claims will be conducted by the Provost's Office.

~FORGIVENESS POLICY

A forgiveness policy is a way in which a student may repeat a limited number of courses to improve his or her GPA by having only the grade

received on the last repeat used in its calculation. Graduate students must follow the procedures described in the FIU Graduate Catalog to utilize the University's forgiveness policy.

Graduate students may repeat no more than two courses with no course being repeated more than once. The course shall be repeated on a letter grade basis. Only the grade and credit received on the second attempt shall be used in computing the graduate GPA. The original grade will remain posted on the student's permanent record.

~RIGHTS AND RESPONSIBILITIES

The University has developed policies and procedures on the rights and responsibilities of students and a code of conduct assuring that these rights may be freely exercised without interference or infringement by others. The code of conduct, academic misconduct policies, student grievance procedures and policies on student records are reported in detail in the University publication Rights and Responsibilities of Students. Also, all administrative procedures and time deadlines must be met, whether or not they are specifically mentioned in this document. Students must operate within the rules and guidelines of the Graduate Policy and Procedures Manual, Graduate Catalog and the Regulations for Thesis and Dissertation Preparation Manual. Accordingly, graduate students should obtain copies of these publications from the Graduate Studies Office *or visit* the Graduate Division website (www.fiu.edu/~gradstud/) and be familiar with their contents.

Department of Biological Sciences ~ Graduate Program

Student Progress Memo

To: Graduate Committee

From:

CC:

Date:

Re: **First Committee Meeting**

Student Name: _____

Social Security Number: _____

Date of 1st Meeting: _____

Degree Earning: M.S PhD

Committee Members are as follows:

Please print names in this column . Please put signatures below.

_____	Major Professor	_____
_____		_____
_____		_____
_____		_____
_____		_____

Form C and a five-page summary of the proposed research was completed and presented to the committee.

Foreign language requirement will be fulfilled by: _____

The qualifying exam is scheduled for: _____

Topics examined by individual examiners are: _____

The proposal seminar was scheduled for: _____

Specific classes or any other conditions required by the committee are:

Student Progress Memo

To: Graduate Committee

From:

CC:

Date:

Re: Qualifying Exam

_____ took the *qualifying exam* on _____
(Student Name) (Date)

Degree Earning: M.S PhD

He/She was examined on the following topics by:

TOPIC

EXAMINER'S SIGNATURE

The committee was (unanimous / not unanimous) in assigning a passing grade for the examination.

(If the committee was not unanimous, it is the student's responsibility to request re-examination from the departmental graduate committee. The student's committee should indicate if they are in favor of re-examining the student.)

Comments:

Student Progress Memo

To: Graduate Committee

From:

CC:

Date:

Re: **Language Requirement**

Student Name: _____

Social Security Number: _____

Degree Earning: M.S. PhD

Date Language Requirement was fulfilled: _____

The Language Requirement was fulfilled by:

Successful completion of a written examination in a foreign language by examination administered by the Department of Modern Languages
Language that was tested: _____

Certification of language proficiency from another institution through either courses or examination or through satisfactory completion of the Graduate Student Foreign Language Test (administered by Educational Testing Service, Princeton, NJ 08540)

Student substituted six credits of graduate statistics, Computer Programming or Mathematics beyond Calculus II

The committee (approved / did not approve) the student's method of fulfilling the foreign language requirement.

Comments: _____

Signature of Major Professor: _____

Student Progress Memo

To: Graduate Committee

From:

CC:

Date:

Re: Proposal Seminar

Student Name: _____

Social Security Number: _____

Degree Earning: MS PhD

Date of Proposal Seminar: _____

The committee was (unanimous / not unanimous) in assigning a passing grade for the proposal seminar.

A copy of the announcement for the seminar has been filed.

Comments: _____

Signature of Major Professor: _____

Student Progress Memo

To: Graduate Committee
From:
CC:
Date:
Re: Annual Committee Meeting

Student Name: _____

Social Security Number: _____

Degree Earning: M.S PhD

Date of Committee Meeting: _____

Decision of Committee: Satisfactory Unsatisfactory

Committee Members are as follows:

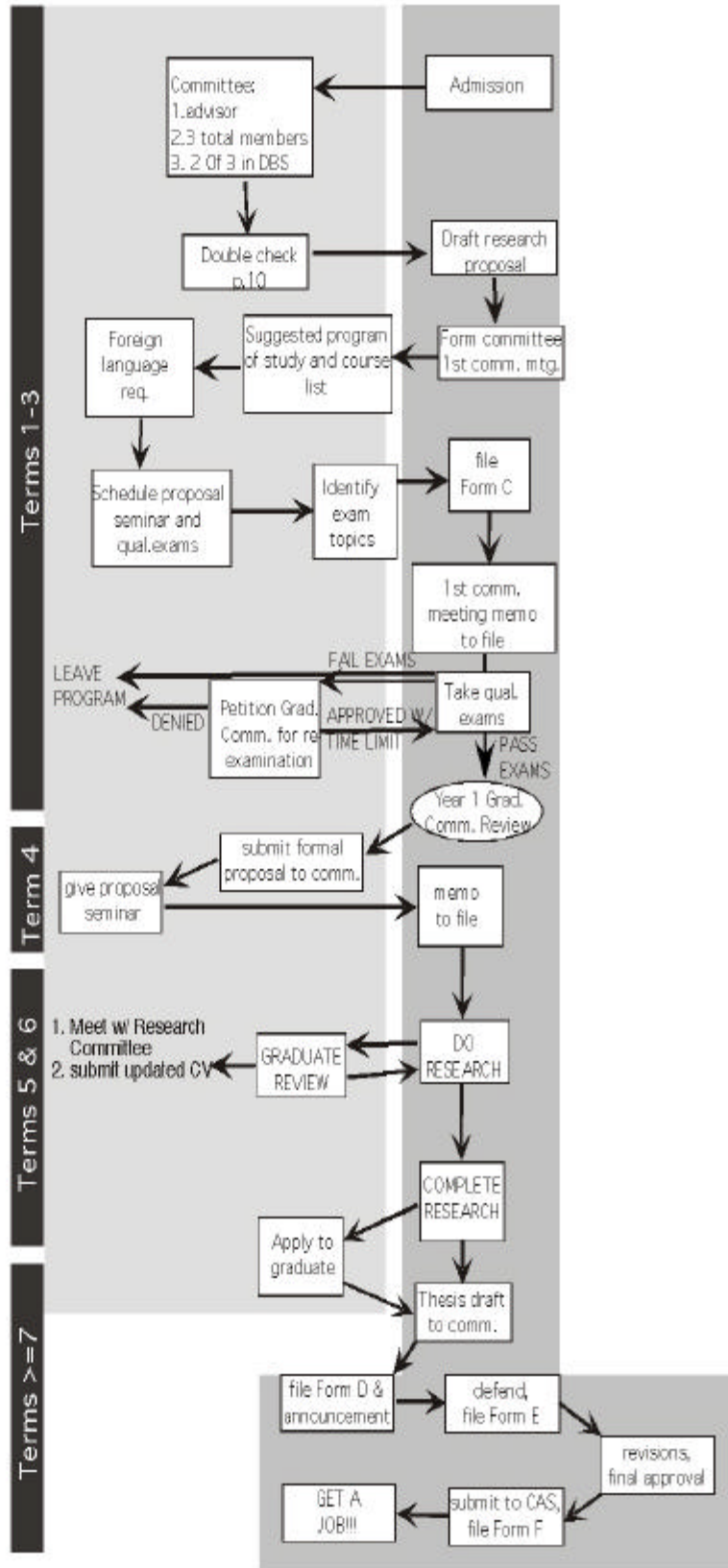
Please print names in this column

Please put signatures below.

_____	Major Professor	_____
_____		_____
_____		_____
_____		_____

Comments: _____

Progress Towards a Masters Degree in Biology



Progress Towards a Ph.D. Degree in Biology

