

Graduate Program Handbook

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Miami, Florida 33199**

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Introduction

This handbook describes policies and procedures for graduate programs in Geosciences offered by the Department of Earth Sciences at FIU. Graduate degree programs in Geosciences at the **M.S.** and **Ph.D.** levels provide opportunities for concentrated studies in structural geology/tectonics, igneous petrology/geochemistry/economic geology, hydrogeology and environmental geology, stratigraphy/sedimentology, paleobiology, geophysics/paleomagnetism, atmospheric sciences and remote sensing/geographic information systems. In addition, the Department participates in a multidisciplinary Graduate Certificate Program in Geographic Information Systems.

This handbook is intended for the informational use of graduate students in Geosciences degree programs and contains information and procedures specific to those programs. It complements the general Graduate Student Handbook produced by the University Graduate School (UGS), which is available as a pdf at <http://gradschool.fiu.edu/policies.html>. This handbook refers to current forms produced by the UGS and supercedes all previous editions of the handbook. Updated forms and current deadlines may be obtained from the University Graduate School WWW site at <http://gradschool.fiu.edu>. Additional information on regulations and course offerings may be found in the Graduate Catalog, which may be purchased at the University Bookstore or viewed on-line at <http://catalog.fiu.edu/index.php?id=3833§ion=cataloghome>. Updates and revisions to this guide will be published periodically. Revisions will be emailed to students and posted on the Department website.

It is the student's responsibility to be familiar with the policies and procedures within this manual and to conform with forms, procedures, and deadlines published by the University Graduate School. After reading this manual, all students must detach and sign the form below and return it to the Graduate Program Secretary, for inclusion in your file.

Note: Throughout this document, the word "term" refers to either the Fall or Spring semesters or Summer C. There are 3 "terms" per academic year.

Detach Below:

I have received and read the Department of Earth Sciences Graduate Program Handbook.

Print Name

Signature

Date

Masters of Science Degree in Geosciences

The Master of Science degree is conferred upon successful completion of the requirements (listed below) of either the *Thesis Track* or *Non-Thesis Track* option of the degree program. The Thesis Track M.S. program is a traditional Masters degree program that requires satisfactory completion of required course work, mastery of a subdiscipline of geoscience, and completion of an independent research project (the Masters Thesis). The Non-Thesis Track M.S. program is intended for working professionals with work duties that do not allow them the research time required to complete a Masters Thesis. Graduate Assistantships (financial aid) are generally not awarded to students pursuing the Non-Thesis Track M.S. Both tracks require completion of at least 30 credits of approved graduate level coursework with a minimum GPA of 3.0. Up to 6 semester hours of graduate level work earned as a non-degree seeking student may be applied towards the M.S. degree with the approval of the Graduate Program Director (GPD).

M.S. Thesis Track: Procedures and Regulations

Initial Advisement

As soon as possible, but no later than early in your second term, the student should formally choose a thesis advisor and a thesis topic. The thesis advisor must be a member of the Department and the FIU Graduate Faculty. Please bear in mind that professors are not obligated to advise you, even if you are admitted and you would like to work with them. If you strongly prefer to work with a particular faculty member, you should make sure that they are willing to advise you before or shortly after you submit your application. If you are admitted but have not identified an advisor through your own discussions with faculty members, the GPD will assign you an academic advisor based on your scientific interests.

Before the registration period of your first term, you will meet your advisor to discuss your coursework. Also, at this time you should begin discussing potential thesis topics. Selection of a thesis topic and work toward a thesis proposal should begin as soon as possible. In addition to meeting with your assigned advisor, you may want to seek out introductory meetings with other faculty members of the department whose research fields are of potential interest to you. You may change advisors if your interests change during the first term.

Minimum Course Requirements:

Formal (non-research) graduate courses	20 credits
Electives (formal graduate courses, seminars, or supervised research)	4 credits
M.S. Thesis (GLY 6971)	6 credits
Total	30 credits

Other specific graduation requirements include:

1. A minimum GPA of 3.0 in all course work required for the M.S. degree.
2. Passing performance on the oral defense of the M.S. thesis proposal.
3. Completion and successful public defense of the M.S. thesis.

At least 20 credit hours from among the total of 30 required for the M.S. must be in formal lecture and/or lab courses (not supervised research or seminars); this total includes the compulsory Planet Earth sequence. Planet Earth currently includes four 1-credit modules, but will expand to 6 modules. All courses must be chosen in consultation with your advisor. Courses outside the department may be taken at the discretion of your advisor. A maximum of 6 semester hours of graduate-level coursework may be transferred from another accredited university toward your M.S. credit requirements, provided you earned these credits within the 6 years prior to your enrollment at FIU, you earned at least a B on these credits, and the credits are considered acceptable as part of your academic program by your advisor and the Graduate Program Director. No course counted towards a student's undergraduate degree may be included in that student's M.S. degree program.

The M.S. degree is a two-year program for a full-time student. Since a full-time student normally takes 9 credits of coursework each fall and spring term (the minimum necessary to maintain an assistantship), and 6 credits during the summer term, M.S. students usually graduate with more than the required 30 credits. All students are required to complete the Planet Earth sequence of 1-credit courses as part of their formal coursework. Prior to the defense of the thesis proposal, M.S. students may enroll in Supervised Research (GLY 6910) with their advisor. Once the student's Master's thesis proposal has been successfully defended (and form M-2 submitted to the Graduate School), students may enroll in Thesis (GLY 6971). Once you begin taking Thesis, you should not register for Supervised Research except in unusual circumstances.

As noted in above, you must have a minimum grade point average (GPA) of 3.0 to graduate from the M.S. program. Your GPA is based only on formal lecture and/or lab courses. If your GPA drops below 3.0 in any term, you will be put on academic warning by the Graduate School. Refer to the Graduate Catalog for information on the conditions for academic warning, probation, and dismissal.

Thesis Committee and Research

Thesis research will form the centerpiece of your M.S. degree. Students frequently underestimate the time needed to carry out their research and write their theses. Thesis research should begin immediately in the first term, with at least background readings and discussions of these readings with your advisor, and possibly preliminary lab and fieldwork. This early work will form the basis of your thesis proposal (see below). Your first summer will normally be your first opportunity to carry out research without concurrent coursework, and should be a time for significant progress. Your research will then continue concurrently with coursework during your second year (ideally you should try to have all your coursework completed by the end of your third semester so that you can enroll only in Thesis (GLY 6971) in subsequent terms and complete your thesis without interruption).

Thesis research is conducted under the guidance of your advisor and Thesis committee. By the first weeks of your second term at the latest, you should (with your advisor's assistance and approval) appoint the members of your thesis committee and file **Form**

M-1: Appointment of Thesis Committee. The committee must consist of a minimum of 3 members (including your advisor), at least 2 of whom must be from the Department of Earth Sciences. All committee members must be members of the FIU Graduate Faculty. Additional members may be appointed; if they are not FIU Graduate Faculty, their CV must accompany Form M-1. Form M-1 should be submitted no later than the UGS deadline and should typically be submitted one term before Form M-2 (the Thesis Proposal), and at least 2 terms before the anticipated graduation date.

Forms may be obtained from the UGS office (PC236) or from the UGS website. After obtaining Departmental signatures, a photocopy of each form (M-1 → M-5) should be submitted to the Graduate Program Director for inclusion in your file. Each year the UGS publishes specific deadlines for submission of forms and holding a thesis/dissertation defense. These dates are available at:

<http://gradschool.fiu.edu/dates1.htm>

Thesis Proposal and Defense

Before the end of the third term (within the first calendar year) you should prepare and defend a proposal of your thesis research. (For part-time students this defense should be no earlier than the completion of 9 credits of coursework and no later than the completion of 26 credits.)

Your proposal should be developed in close consultation with your advisor. The text of the proposal must be no longer than **10** double-spaced pages (excluding abstract and figures). The proposal should include an abstract, introduction, proposed research, preliminary data, figures, and references based on your background research. Once your advisor agrees the proposal is ready to defend, you will distribute a copy to each committee member and at that time schedule your presentation/defense. Copies of the proposal should be given to each committee member no later than **2 weeks** before the date of the proposal defense. Students must register for Thesis (GLY 6971) in the semesters AFTER they successfully defend their proposal. Once enrollment in Thesis credits is initiated, continuous registration for at least 1 credit hour of Thesis each term (including the summer term) is required until the thesis is completed.

The thesis proposal is judged primarily on the following three criteria:

1. It addresses a scientific problem or issue of some significance.
2. The methodology is appropriate to the problem, and it is logically presented.
3. It is based on a sound understanding of coursework and research literature relevant to the topic.

The thesis proposal is presented at a short (20-30 minute) public seminar, followed by questions from the audience. The student is responsible for arranging the time and place of the seminar with the Graduate Seminar instructor. An announcement of the seminar must be posted in the Department one week in advance of the seminar date. Immediately after the seminar your thesis committee will question you in detail about your research plan and your readiness to undertake your project. The committee will then excuse you from the room while they evaluate the research proposal and your defense of it in a

closed-door discussion. Possible outcomes of the proposal defense are: 1) pass, with little or no revision; 2) pass, with revision of the written proposal to the satisfaction of the committee; or 3) revision of the written proposal and resubmission for a second defense. The thesis proposal can be submitted for defense a total of two times; failure to pass results in termination of the program of study and of financial aid.

After the successful proposal defense, you must file **Form M-2: Master's Thesis Proposal** with the Dean of the College of Arts and Sciences and the University Graduate School along with a **5-page** summary of the thesis proposal. Consult the UGS "Regulations for Thesis and Dissertation Preparation Manual" for the format for the thesis proposal. Form M-2 should be submitted no later than the UGS deadline and at least one term before the anticipated graduation date. In addition, you should email the Graduate Program Director, a 1 page abstract of your proposal in electronic form (attached M.S. word doc or PDF file) for posting on the department web site.

Responsible Conduct of Research training: Beginning in Fall 2008, all graduate students who file Form M-2 must complete Responsible Conduct of Research (RCR) training. You may register for this course online at <http://www.ori.fiu.edu/responsibleConduct.html>. You must submit a copy of your RCR certificate of completion with Form M-2 and save a copy for your records.

It is important to prepare the thesis proposal as early as possible. Full-time students must successfully defend their proposals within one year of entering the program. For example, if you are a full time student entering in fall term, you must pass your proposal defense by the end of the following summer term. Part-time students must defend their proposals before completing 26 credits. Failure to do so may result in loss of TA and/or dismissal from the program.

Thesis Preparation

Formal FIU guidelines for preparation of your thesis are found in the UGS "Regulations for Thesis and Dissertation Preparation Manual". These guidelines must be followed exactly.

Your thesis is submitted first to your thesis advisor (wholly or in sections, depending on your advisor's instructions to you). Your advisor will require at least one cycle of revisions and improvements until a **high-quality and complete draft** is produced that he or she approves for distribution to the other members of your thesis committee. Once your advisor feels the thesis is ready to present and defend, you will distribute copies to the other members of your thesis committee, and at that time schedule your thesis defense. You must provide copies of your thesis to your committee at least **4 weeks** before your defense date.

To schedule your defense, you must submit **Form M-3: Preliminary Approval of Thesis and Request for Oral Defense** with signatures to the UGS. At the time Form M-3 is filed, the thesis must be complete and suitable for defense. One copy of the thesis, certified as complete and provisionally acceptable to the committee, and one copy of the

Thesis Defense Announcement must be submitted with Form M-3 to the UGS at least 3 weeks before the date of the defense or by the term's deadline (whichever is earlier). The announcement should be posted publicly in the Department at least one week before the defense.

Closer to the date of your defense, you should visit with each committee member and ask whether they have comments or suggestions to relay to you before your defense.

Many students underestimate the amount of time required to prepare an M.S. thesis. Students should start writing their thesis at least 6 months before their planned graduation date. Committee members and the Graduate Program Director will not sign Form M-3 for an incomplete Thesis, regardless of any impending deadline. Failure to consider this may result in the delay of your defense and graduation by one term.

Thesis Defense

At your thesis defense, you will present your results in a public talk of about 40 minutes length, and answer questions from the audience. After this open presentation and question/answer period, your committee will question you privately in more detail about the results of your project. You will then leave the room while they evaluate your written thesis and your defense.

Possible outcomes include: 1) pass with minor/no revision; 2) pass with major revision; and 3) failure (the thesis requires major revision and a second defense must be scheduled). The first outcome requires only that your advisor approve the final copy of your thesis before it is forwarded outside the department for further approval (see below). The second outcome requires that the final version of your thesis be evaluated and approved by all thesis committee members. The third outcome should be uncommon, and can be avoided by careful attention to a few common sense points:

1. Be sure there is clear agreement among members of your committee, at the completion of your proposal defense, about the requirements and expectations for your thesis.
2. Do careful, quality work in your research and writing, in close contact with your advisor.
3. Keep your committee informed of your progress from time to time between your proposal defense and your thesis defense, especially if there are changes in the scope or focus of your work after the proposal defense. If you feel that you are unclear about what needs to be done to complete your thesis, or that you are getting contradictory advice from your advisors, you can schedule a meeting of your thesis committee at any time when all can attend to review the issues that concern you.
4. Prepare well for your thesis defense. Construct a good talk with clear visual aids. Practice the talk several times before your defense, trying to anticipate likely questions for which you can formulate answers in advance.

After the defense **Form M-4: Thesis Defense Report** is filed with the UGS. You should have this form ready for the signatures of your committee members at the defense.

Submission of Thesis

After the thesis is revised and approved by all committee members, final copies must be prepared according to the formal guidelines in the UGS "Regulations for Thesis and Dissertation Preparation Manual". The signature page of the thesis requires the signatures of all committee members, the Dean of Arts & Sciences, and the Dean of Graduate Studies. One copy is to be submitted to the Dean of the College of Arts and Sciences and then to the Dean of Graduate Studies for approval, together with **Form M-5 Final Approval of Thesis**. The Graduate School will carefully review the thesis. The Graduate Studies Office submits the fully approved thesis to the University Library. At least two copies are required for the Department of Earth Sciences: one for the department thesis inventory, and one for your advisor. It is also common practice to offer a copy to each member of your thesis committee.

Students must meet all published deadlines. The form: "Application for Graduation" must be filed with the Registrar's Office before the end of the 3rd week of the term in which they plan to graduate. Students turning in the Application for Graduation after the deadline will graduate the following term. Students who do not complete the degree requirements in the term for which they apply for graduation must re-apply and complete the requirements needed for graduation.

Changing Thesis Advisor or Committee Members

If subsequent to the submission of your Thesis proposal, a committee member is unable to continue to serve, you must file **Form M-1r: Approval of Revised Thesis Committee**. This form will require the signatures of the leaving members and the new replacement members. The signatures of the faculty leaving the committee affirm that the reason for their departure is not related to any concerns regarding the quality of the thesis. The signatures of the faculty added to the committee affirm they met with the student, reviewed and approved the proposal and agreed to serve on the committee.

If you want to change thesis advisors after filing Form M-1, you must have approval from the Department Graduate Committee. Requests for a change of advisor must be submitted in writing to the GPD. We expect that you and your advisor will be in agreement before the request is submitted, and that approval will be routine. After obtaining approval from the Graduate Committee you must submit Form M-1r. If you and your advisor disagree over the change, you are both urged to discuss it first with the GPD, and then with the department Chair if necessary, and make every effort to resolve the disagreement.

If diligent efforts fail to resolve the conflict, both sides will present a brief written summary of their case to the Graduate Program Director. Both sides will then present their case in a hearing before the Graduate Committee, who together will consider the situation and make a recommendation. If a Committee member is involved in the dispute, he/she will only present his/her case and will not be allowed to vote. Tie votes will be decided by the department Chair. Such a hearing is the very last resort in

resolving a problem between a student and their advisor, and will not be held unless all other avenues have been unsuccessful.

M.S. Degree Milestone table

A sample sequence of the required courses, forms and milestones for a full time student in the thesis M.S. program is summarized in the table below. An individual student's program may differ slightly. In every case, make and retain copies of all forms M1-5 for your records as you progress through the program.

Year 1			Year 2		
Fall	Spring	Summer	Fall	Spring	Summer
Initial advisement	Nominate committee (Form M-1)	Formalize research plan	Thesis research	Prepare thesis	Defend thesis (Forms M-3, M-4)
Talk with potential committee members	Graduate Seminar (GLY5931)	Submit proposal (Form M-2)	Advanced Graduate Seminar (GLY 6931)	Submit draft to advisor, committee	Submit final approved thesis (Form M-5)
Planet Earth	Planet Earth				
Coursework Supervised Research (GLY 6910)	Coursework Supervised Research (GLY 6910)	Field/Lab research Thesis (GLY 6971)	Coursework? Thesis (GLY 6971)	Thesis (GLY 6971)	Thesis (GLY 6971)

Other Questions

If questions arise on procedures or requirements for the Master of Science program which are not covered in this handbook, you should first seek clarification from your thesis advisor, and then from the Graduate Program Director if needed. In rare instances, the GPD may ask the Dean of Graduate Studies to waive degree requirements on behalf of a student, at the discretion of the dissertation advisor and the Graduate Program Director.

Non-thesis M.S. Degree Option

The non-thesis option requires 30 credits of coursework and provides working professionals the opportunity to pursue an advanced education without having to leave their jobs and attend full time, or to coordinate the extensive lab or field time typically required for the M.S. thesis.

Admissions and Application Criteria

Students applying for the non-thesis M.S. track must meet the same qualifications as regular M.S. applicants. Non-thesis M.S. students will not ordinarily be awarded assistantships.

Students who wish to switch to the non-thesis M.S. track from either the M.S. thesis track or the Ph.D. program must submit a written request for the change to the Geosciences Graduate Committee. The Graduate Committee will accept or reject the request in consultation with the student's major advisor in their current program.

Advising

New students in the non-thesis track will select a major advisor based on their scientific interests, subject to the agreement of that advisor—if the student does not select a major advisor, the Graduate Program Director will appoint one for them. The student may change major advisors if their interests change. The major advisor is responsible for seeing that the student's coursework fulfills the requirements for the degree track. The student must have their course schedule approved by their major advisor each term. If the student chooses to do a research proposal or internship, the major advisor must approve the quality of the completed project.

Course requirements for the non-thesis track:

Formal (non-research) graduate courses in the field of specialization	18 credits
Elective graduate courses within or outside the field of specialization.	9 credits
Supervised Research or Professional Internship	3 credits

The non-thesis M.S. is conferred based on satisfactory performance (grade of B or above) in all coursework. Up to 4 hours of a senior (4000 level) coursework may be included in the required 30 hours if these credits were not counted as part of the student's undergraduate degree program. Courses outside the department may be taken at the discretion of the major advisor. A maximum of 6 hours of graduate level coursework, undertaken within the past 6 years, may be transferred from FIU or another accredited university toward the non-thesis Master's credit requirements; the student must have earned at least a B on these credits, and they must be considered acceptable by the major advisor and the Graduate Program Director.

The student will choose one of the areas of concentration offered by the Department of Earth Sciences as their field of specialization. Courses in the designated specialization will constitute at least half of the required coursework (18 credits); courses in the field of specialization must have the approval of the major advisor. The remaining 9 hours of formal graduate coursework may be from within or outside the area of specialization, or from other related disciplines (e.g., Biology, Chemistry, etc.) with the advisor's approval.

The remaining 3 credits may be satisfied in either of two ways.

1. The student may choose to take 3 credits of Supervised Research (GLY 6910) and write a research paper on a topic in their field of specialization to satisfy the course requirement. The topic of the research paper must be approved by the major advisor, and it must be graded by the major advisor and receive a grade of "B" or better to be accepted.
2. The student may choose to complete an internship in a company where they are employed in Earth Science-related work, and write a report on the work done in their internship. The internship must be approved by the student's major advisor,

and the report must be graded by the major advisor and receive a grade of “B” or better to be accepted.

Students must make an oral presentation of their research paper or internship report to the Department.

A minimum GPA of 3.0 in all course work required for the 30 credits toward the Master of Science in Geology degree, including 3 credits of Supervised Research if the research paper option is chosen. All courses for the non-thesis M.S. degree track must be taken for a letter grade--no pass/fail graded courses will be counted toward the 30 required credits.

Required Forms

Non-thesis M.S. students are not required to file Forms M1 – M5. The form: *Application for Graduation* must be filed with the Registrar’s Office before the end of the 3rd week of the term in which they plan to graduate.

Ph.D. Program in Geosciences

The Ph.D. in Geosciences is a research-based degree which also requires a significant body of coursework. Satisfactory completion of the following major elements of the program is required for graduation:

- coursework
- a written and oral qualifying exam administered by the dissertation committee
- a written dissertation research proposal, and oral presentation/defense of the proposal
- a written dissertation presenting original research of publishable quantity and quality, and oral presentation/defense of the dissertation.

Ph.D. Procedures and Regulations

Initial Advisement

As soon as possible, but no later than early in your second term, you should formally choose a dissertation advisor. The dissertation advisor must be a member of the FIU Graduate Faculty who holds Dissertation Advisor status. Please bear in mind that professors are not obligated to advise you, even if you are admitted and you would like to work with them. If you strongly prefer to work with a particular faculty member, you should make sure that they are willing to advise you before or shortly after you submit your application. If you are admitted but have not identified an advisor through your own discussions with faculty members, the Graduate Program Director will assign you an academic advisor based on your scientific interests.

Before the registration period of your first term, you will meet your advisor to discuss your coursework. Also, at this time you can begin discussing potential thesis topics--selection of a dissertation topic. In addition to meeting with your assigned advisor, you may want to seek out introductory meetings with other faculty members at the University whose research fields are of potential interest to you. You may change advisors if your interests change during the first term. If your schedule is not filled with formal coursework before reaching candidacy, you should be registered for one or more credits of a section of Supervised Research (GLY 6910) under your advisor's name.

Minimum Course Requirements (75 credits, including):

Formal (non-research) graduate courses	32 credits
Ph.D. Dissertation (GLY 7980)	24 credits

Courses will be chosen in consultation with your advisor. At least 32 credit hours from among the total of 75 required for the Ph.D. must be in formal lecture and/or lab courses (not research or seminars); this total includes the compulsory Planet Earth sequence. Planet Earth currently includes four 1-credit modules, but will expand to 6 modules. Courses outside the department may be taken at the discretion of your advisor. Additional courses may be either lecture or research credits. Research credits should be in either a section of Supervised Research (GLY 6910), or in Dissertation (GLY 7980) under your advisors name. Students may register for Supervised Research (GLY 6910) from their first semester through the semester they are admitted to candidacy (Form D-2 signed and deposited with UGS). Thereafter, students must register for at least 3 credits

of Dissertation (GLY 7980) each term until the dissertation is completed (Form D-7 signed and deposited with UGS). Ph.D. students should never register for Thesis (GLY 6971).

A maximum of 36 credits of graduate level coursework may be transferred from another accredited U.S. graduate program toward your Ph.D. credit requirements, provided that these credits were earned as part of a completed graduate degree. A maximum of six semester hours of graduate credits earned as part of an incomplete accredited graduate program or as a FIU non-degree-seeking student may be transferred provided they were earned within the 6 years prior to enrollment at FIU. All transfer credits must have a minimum grade of B, and must be considered acceptable as part of your academic program by your advisor and the Graduate Program Director. Normally, only credits from formal lecture courses are transferable. Transfer credits are assigned at the time of filing the Application for Candidacy (Form D-2).

Since a full-time student takes 9 credits of coursework each fall and spring term before candidacy and 6 credits during the summer term, Ph.D. students may graduate with more than the required 75 credits. Normally, the excess credits are in Dissertation (GLY 7980).

A minimum GPA of 3.0 is required for the Ph.D. degree. Your GPA will be based only on formal lecture and/or lab courses and Supervised Research, GLY 6910 (Dissertation, GLY 7980, is graded on a pass/fail basis only). If your GPA drops below 3.0 in any term, you will be put on *Academic Warning* by the College of Arts and Sciences. Refer to the University Student Handbook and the Graduate Catalog for information on the conditions for academic warning, probation, and dismissal.

Dissertation Committee and Research

While coursework is required for the Ph.D. degree and is important, the focus of the Ph.D. program is the completion of a dissertation involving original research. Timely completion of the program requires that you begin your research as soon as possible. Dissertation research must begin in the first term, with at least background readings and discussions of these readings with your advisor, and possibly preliminary lab and fieldwork. This early work will form the basis of your dissertation proposal (see below). Ultimately, your dissertation research should result in publications in the peer reviewed scientific literature.

Your first summer will normally be your first opportunity to carry out research without concurrent coursework, and should be a time for significant progress. Your research will then continue concurrently with coursework until your coursework is completed (ideally you should have all your coursework completed by the end of your second year).

Dissertation research is conducted under the guidance of your advisor and dissertation committee. By the end of your first year, you should (with your advisor's assistance and approval) appoint the members of your dissertation committee and file **Form D-1: Appointment of Dissertation Committee**.

The dissertation committee consists of a minimum of 4 members (including your advisor). Your advisor must be a member of the Graduate Faculty who holds Dissertation Advisor status and must be an expert in the field of your expected dissertation research. Three other committee members must be members of the FIU Graduate Faculty; of these three members, two must be from within the program and hold terminal degrees in Geosciences. The third must be from outside the department or school but within FIU. All committee appointments must be approved by the Graduate Program Director and the University Graduate School. Additional members may be appointed; if they are not FIU Graduate Faculty, their CV must accompany Form D-1. Form D-1 should be submitted no later than the UGS deadline and should typically be submitted at least two terms before Form D-3 (the Dissertation Proposal), and at least five terms before the anticipated graduation date. Students should meet with their Dissertation Committee at least once a year.

Forms may be obtained from the UGS office (PC236) or from the UGS website. After obtaining Departmental signatures, a photocopy of each form (D-1 → D-7) should be submitted to the graduate secretary for inclusion in your file. Each year the UGS publishes specific deadlines for submission of forms and holding a thesis/dissertation defense. These dates are available at <http://gradschool.fiu.edu/dates1.htm>.

Qualifying Examination

The purpose of the qualifying examination is to determine your aptitude for independent Ph.D. research and to identify any deficiencies in background that might hinder progress toward the degree. The examination should be taken soon after a dissertation committee is nominated (Form D-1). Students entering with a M.S. degree from an accredited U.S. university should be prepared to take the exam during the second term in the program (before completing 18 credits); those without a M.S. degree normally take the exam before four full terms (36 credits) are completed. The qualifying exam will only be administered during Fall and Spring semesters. Further blackout dates include the first week of a semester and the two weeks prior to scheduled final exam week. Passage of the qualifying examination allows continuation to the candidacy examination and dissertation proposal (Forms D-2 and D-3). Because this exam is mainly diagnostic, it must be held early enough that remedial coursework or other measures may be applied if needed.

The qualifying examination will consist of both written and oral portions administered by 4 FIU graduate faculty members. Examiners will be chosen by the committee chair from the FIU members of your dissertation committee identified on form D-1. Substitute examiners may be appointed if necessary with the approval of the GPD. You must pass both the written and oral portions of the qualifying examination. Failure to pass will result in termination from the Ph.D. program; however, it may be retaken one time at the discretion of the committee.

The written portion will be a closed-book examination administered by the Graduate Program Director, consisting of questions supplied by the examining committee. Examiners will prepare questions that should be answerable in a closed-book format

within 90 minutes. You will have 6 hours to complete the examination. You may bring food and/or beverages to the exam, but you may not leave the room without the permission of the GPD until the exam is finished.

Any violation of the closed book format will be grounds for failure, including the use of pre-prepared answers or files, unauthorized access of texts, articles, notes or the internet, or assistance from any other person during the exam. If you do not understand a question, you may request clarification from the GPD. Examiners will grade the answers to their own questions on a scale from 0 to 4 and return them to the Graduate Program Director. To pass, you must earn a grade of at least 1.0 on every question, and average at least 3.0 for the entire examination. The GPD will submit a memo summarizing the results of the examination to the dissertation advisor, which will be shared with the student and the examining committee prior to the oral examination.

You must schedule the oral portion of the exam within 2 weeks of completing the written examination. If you do not pass the written examination, the examiners may elect to proceed with the oral examination in order to explore your scientific capabilities that may not have been reflected in the written examination. You will be expected to answer questions relating to your research area of interest and to general scientific knowledge. After the examination, the student will leave the room and the examination committee will deliberate; a result of pass requires a majority vote of the committee. The student will be notified of the results of the oral examination immediately after the deliberations. At that time, the members of the examination committee may require additional remedial coursework or study. Immediately after the oral examination, the dissertation advisor will complete the "Results of the Ph.D. qualifying examination" form, and submit the form to the GPD. In addition, within 30 days the student will be given official written notification of the results, in which the committee may stipulate additional conditions or expectations for the student's continued progress in the program.

Dissertation Proposal and Defense: *The Candidacy Exam*

Students are admitted to doctoral candidacy upon successfully completing all required coursework and passing the candidacy exam. The candidacy exam **must** take place before completing 60 graduate credits in the program, including transfer credits. For full-time students, this will occur before the end of 8 terms in the program (including summer terms). For Ph.D. students transferring credits from a M.S. program, this will occur earlier. The candidacy exam must also be scheduled at least 4 terms before the anticipated graduation date. It is extremely important that you proceed to candidacy in a timely manner. Students who do not take their candidacy exam before accruing 60 credits will be dismissed from the program.

The purpose of the candidacy exam is to determine whether you are prepared to begin work on the doctoral dissertation. The exam consists of a closed oral defense of the proposed dissertation project and related knowledge before the dissertation committee. Prior to scheduling the candidacy exam, you should meet with your advisor and the Graduate Program Director to verify that all course requirements have been met.

You must submit a complete written Ph.D. Dissertation proposal to the examiners at least **2 weeks** before the exam. The proposal should be developed in close consultation with your dissertation advisor. The text of the proposal must be no longer than **15** double-spaced pages (excluding abstract, figures, and references). The proposal should include an abstract, introduction, hypotheses, proposed research, preliminary data, figures, and references based on your background research.

At the exam, you will give an oral presentation of the proposal, and justify the objectives of the project and their significance, the proposed methodology, and the relevance of the projected results to the research problem. You may also be required to answer questions demonstrating appropriate background knowledge in your specialization. After the exam, you will leave the room while the committee deliberates. You will be informed of the result of the examination immediately after the deliberation, and the dissertation advisor will summarize the results and stipulations of the committee in writing.

The student can only pass or fail the candidacy examination; the Graduate School does not allow passing to be contingent on further coursework, papers or any other conditions. Failure of this examination terminates enrollment in the Ph.D. program, though the exam may be retaken one time at the discretion of the examiners.

After passing the candidacy exam, you should immediately submit **Form D-2: Program for Doctoral Degree and Application for Candidacy**. This form signifies that your formal coursework has been completed, and that you have passed the qualifying and candidacy exams. The Graduate Program Director will review Form D-2 for accuracy and forward the signed form to the University Graduate School. Form D-2 should be submitted as soon as the candidacy exam results are known and before the end of the term. You will be allowed to register for Dissertation (GLY 7980) credits after acceptance of Form D-2 by the University Graduate School.

Proposal seminar: Ph.D. candidates are required to present a public Department seminar to the faculty and students on their proposed dissertation research before the end of the semester following passage of the candidacy exam. The seminar should be general enough to be understood by the various disciplines within the department. It should be ~45 min in length and should allow time for questions from the audience. The seminar will normally be presented as part of the Department seminar series, but can be scheduled as a special seminar if a Department seminar slot is not available. You are responsible for arranging with the Graduate Seminar instructor to schedule a seminar time. An announcement of the seminar should be posted in the Department one week in advance of the seminar date.

After submission of Form D-2, the candidate should submit **Form D-3: Doctoral Dissertation Proposal** with the Dean of the College of Arts and Sciences and the University Graduate School along with a **5-page** summary of the proposal. Consult the UGS "Regulations for Thesis and Dissertation Preparation Manual" for the format for the proposal. Form D-3 should be submitted no later than the UGS deadline and at least four terms before the anticipated graduation date. In addition, you should email the Graduate

Program Director a 1 page abstract of your proposal in electronic form (attached MS word doc or PDF file) for posting on the department web site.

Students are advised to submit Forms D-2 and D-3 in the same term, well before the end of term. The University Graduate School is typically swamped at the end of each term, which may result in delays in processing the forms. These delays, in turn, may impact registration for Dissertation credits in the following term.

Responsible Conduct of Research training: Beginning in Fall 2008, all graduate students who file Form D-3 must complete Responsible Conduct of Research (RCR) training. You may register for this course online at <http://www.ori.fiu.edu/responsibleConduct.html>. You must submit a copy of your RCR certificate of completion with Form D-3 and save a copy for your records.

You must complete at least 24 Dissertation (GLY 7980) credits to graduate from the Ph.D. program. You must begin registering for Dissertation in the term after you pass the candidacy exam. After a doctoral student is admitted to candidacy, continuous registration for at least 3 credit hours of Dissertation each term (including the summer term) is required until the Dissertation requirement is fulfilled. Once you begin taking Dissertation, you should not register for Supervised Research. If a candidate plans to be absent from FIU in any term prior to completing their dissertation, they should file a *leave of absence* form with the University Graduate School.

Annual Dissertation Progress Conference

Doctoral candidates should convene a yearly conference with their committee to discuss their progress towards the dissertation. Candidates should indicate if they need clarification of the direction of their research, or if they feel that they are receiving contradictory advice from members of their committee which could be cleared up in a face to face meeting. At this meeting, the committee members will sign and record comments on **Form D-4: Dissertation Committee Report of Annual Dissertation Progress Conference**. At the conference, the dissertation advisor will indicate whether progress is *satisfactory* or if it *needs improvement*. Failure to record satisfactory progress in two consecutive dissertation progress conferences may result in dismissal from the program.

Form D-4 should be submitted to the UGS for the first time within a year after Form D-3 and at least yearly thereafter until the dissertation is completed.

Dissertation Preparation

Guidelines for preparation of the dissertation are found in the Division of Graduate Studies' "Regulations for Thesis and Dissertation Preparation Manual". These guidelines must be followed exactly.

The dissertation is submitted first to the dissertation advisor (wholly or in sections, depending on the advisor's instructions). The advisor will require revisions and improvements until a **high-quality and complete draft** suitable for distribution to the

dissertation committee is produced. Once the advisor feels the dissertation is ready to present and defend, you will distribute copies to the other members of the dissertation committee, and at that time schedule the dissertation defense. The candidate must provide copies of the dissertation to the committee at least **4 weeks** before the defense date.

To schedule the defense, the candidate must submit **Form D-5: Preliminary Approval of Dissertation and Request for Oral Defense** with signatures to the UGS. At the time Form D-5 is filed, the dissertation must be complete and suitable for defense. One copy of the dissertation certified as complete and provisionally acceptable to the committee, and one copy of the Dissertation Defense Announcement, must be submitted with Form D-5 to the UGS at least **3 weeks** before the date of the defense or by the term's deadline (whichever is earlier). The announcement should be posted publicly in the Department at least one week before the defense.

After the dissertation committee has had an opportunity to read the dissertation, any member of the dissertation committee who sees fit, or the Ph.D. candidate, may require an informal meeting of the committee to review the written document before the dissertation defense. This consultation may serve to clarify aspects of the scientific emphasis, direction or significance of the research, organization of the dissertation, the extent of revisions to be expected, scheduling of the dissertation defense, or any other issue where clarification is needed. The consultation is meant to resolve potential disagreements among advisors, streamline the dissertation defense process, provide the candidate with the clearest possible guidance leading up to the defense, and reduce the time spent on revisions after the defense. Committee members whose attendance would be difficult to arrange need not be present. The candidate is not required to be present at this consultation if one is held.

Many students underestimate the amount of time required to prepare a doctoral dissertation. Students should start writing their thesis at least 12 months before their planned graduation date. In fact, writing should start immediately after candidacy. Some students choose to compile a dissertation from separate papers written during their tenure in the Ph.D. program. Consult with your advisor and committee as to the preferred format for your dissertation. Committee members and the Graduate Program Director will not sign Form D-5 for an incomplete dissertation, regardless of any impending deadline. Failure to consider this may result in the delay of your defense and graduation by one term.

Dissertation Defense

At the dissertation defense, you will present your results in a ~45 min talk to the University community and the general public. The committee will then question you on the content, significance, and presentation of the research, and determine the outcome of the defense. Possible outcomes include: 1) pass with minor/no revision; 2) pass with major revision; and 3) failure (the dissertation requires major revision and a second defense must be scheduled). The first outcome requires only that the advisor approve the final copy of the dissertation before it is forwarded outside the department for further approval (see below). The second outcome requires that the final version of the

dissertation be evaluated and approved by all dissertation committee members. The third outcome should be quite uncommon, and you can avoid it by careful attention to a few common sense points:

1. Be sure there is clear agreement among members of your committee at the completion of the candidacy exam and in annual meetings about the requirements and expectations for the dissertation.
2. Do thorough, quality research and careful writing in close consultation with your advisor.
3. Keep the committee informed of progress between the candidacy exam and the dissertation defense, especially if there are changes in the scope or focus of work after the candidacy exam.
4. Call additional meetings of the dissertation committee if clarification of your research direction is needed.
5. Prepare well for the dissertation defense (i.e., construct a good talk with clear visual aids, practice the talk several times before the defense, anticipate likely questions and formulate answers in advance).

After the defense, **Form D-6: Dissertation Defense Report** is filed with the UGS; you should have the form ready for the signatures of the committee members at the defense.

Submission of Dissertation

After the successful dissertation defense, you will carry out all revisions specified by the committee. Once the revised dissertation is approved by all committee members, final copies must be prepared according to the guidelines in the Division of Graduate Studies' "Regulations for Thesis and Dissertation Preparation Manual". The signature page of the dissertation requires the signatures of all committee members, the Dean of Arts & Sciences, and the Dean of the UGS. One copy is to be submitted to the Dean of the College of Arts and Sciences and then to the Dean of UGS for approval, together with **Form D-7: Final Approval of Dissertation**. Form D-7 is signed by the dissertation advisor and the two Deans. The Deans (or their designates) will carefully review the format of the dissertation. The Graduate Studies Office submits the fully approved dissertation to the University Library. At least two copies are required for the Geology Department: one for the department dissertation inventory, and one for your advisor. It is also common practice to offer a copy to each committee member.

Changing Dissertation Advisor

If subsequent to the submission of your dissertation proposal, a committee member is unable to continue to serve, you must file **Form D-1r: Approval of Revised Dissertation Committee**. This form will require the signatures of the leaving members and the new replacement members. The signatures of the faculty leaving the committee affirm that the reason for their departure is not related to any concerns regarding the quality of the dissertation. The signatures of the faculty added to the committee affirm they met with the student, reviewed and approved the proposal and agreed to serve on the committee.

To change dissertation advisors after passing your proposal defense, you must have

approval from the Graduate Committee. Requests for approval must be submitted in writing to the Graduate Program Director. We expect that you and your advisor will be in agreement before the request is submitted, and that approval will be routine. After approval from the Graduate Committee you must submit Form D-1r. If you and your advisor disagree over the change, you are both urged to discuss it with the Graduate Program Director and make every effort to resolve the disagreement. If diligent efforts fail to resolve the conflict, both sides will present a brief written summary of their case to the Graduate Program Director. Both sides will then present their case in a hearing before the Graduate Committee, who will deliberate and make a recommendation. If a Committee member is involved in the dispute, he/she will not be allowed to vote. Tie votes will be decided by the department Chair. Such a hearing is the very last resort in resolving a problem between a student and their advisor, and will not be held unless all other avenues have been unsuccessful.

Doctoral Degree Milestone Table

A sample sequence of the required courses, forms and milestones for a full-time student in the Ph.D. program is summarized in the table below. Please note that an individual student's program may differ slightly. In every case, make and retain copies of all forms D1-7 for your records as you progress through the program.

Year 1			Year 2		
Fall	Spring	Summer	Fall	Spring	Summer
Initial advisement	Nominate committee (Form D-1)	Explore research plan	Qualifying exam	Prepare proposal	Submit proposal (Form D-3)
Talk with potential committee members	Graduate Seminar (GLY5931)	Preliminary research/ fieldwork	Advanced Graduate Seminar (GLY 6931)	Candidacy exam (Form D-2)	
Planet Earth	Planet Earth		Coursework	Coursework	
Coursework, Supervised Research (GLY 6910)	Coursework, Supervised Research (GLY 6910)	Supervised Research (GLY 6910)	Supervised Research (GLY 6910)	Supervised Research (GLY 6910)	Dissertation (GLY 7980)

Year 3			Year 4		
Fall	Spring	Summer	Fall	Spring	Summer
Dissertation research	Dissertation research	Dissertation research	Dissertation research, writing	Dissertation research, writing	Defend dissertation (Forms D-5, D-6)
Progress conference			Progress conference	Submit draft to advisor,	Submit final approved

with committee (Form D-4)			with committee (Form D-4)	committee	thesis (Form M-5)
Dissertation (GLY 7980)	Dissertation (GLY 7980)	Dissertation (GLY 7980)	Dissertation (GLY 7980)	Dissertation (GLY 7980)	Dissertation (GLY 7980)

Other Questions

If questions arise on procedures or requirements for the Ph.D. program which are not covered in this handbook, you should first seek clarification from your dissertation advisor, and then from the Graduate Program Director if needed. In rare instances, the Graduate Program Director may ask the Dean of Graduate Studies to waive degree requirements on behalf of a student, at the discretion of the dissertation advisor and the Graduate Program Director.

Graduate Certificate in Geographic Information Systems

The Department of Earth Sciences participates in a graduate certificate program in Geographic Information Systems (GIS) The certificate program provides students with an interdisciplinary background in GIS. The program consists primarily of graduate level courses in Geographic Information Systems with electives in related disciplines such as Biology, Earth Sciences, Civil Engineering, Environmental Studies, International Relations, Landscape Architecture, Public Health, and Urban Planning. The program requires 18 Graduate Hours (6 courses) in approved GIS courses as follows:

- ∞ One 3 credit course in each of the following list of core subjects:
 - Introduction to GIS
 - Advanced/Intermediate GIS
 - Remote Sensing
- ∞ 9 credits (3 courses) of approved electives

Credits earned in the certificate program may be used in a Master’s degree program provided that the student is admitted to the Master’s program prior to the completion of no more than 12 graduate certificate credits. For more information on the certificate in Geographic Information Systems, contact Zhaohui Jennifer Fu, the head of the FIU GIS-RS Center , GL 275D or call (305) 348-3138 or email: fujen@fiu.edu, or visit: <http://gislab.fiu.edu>.

Financial Aid

Full time graduate students in the Department of Earth Sciences are usually supported with some type of financial aid. Financial aid awards usually include a stipend to cover living expenses and a waiver of most tuition. Types of financial aid include: Teaching Assistantships (TA), Research Assistantships (RA), University Fellowships, and External Agency Fellowships, and Travel Grants.

Assistantships

Assistantships are provided by the Department to support graduate studies of qualified students. The number of assistantships are limited and awarded on a competitive basis. Assistantships are normally awarded for the full period of study toward a degree (two years for a Master's student, four years for a Ph.D.), but are renewed each term subject to satisfactory performance in the degree program and continued availability of funding. Students in the non-thesis Masters program are not eligible for assistantships.

In order to maintain an Assistantship, you must:

- 1) be registered full time: 9 credits of graduate level courses each Fall and Spring term and 6 credits for the Summer C term.
- 2) maintain a "B" (3.00) average
If you post a GPA below 3.0 in any term (regardless of your cumulative GPA), you will be placed on warning that your assistantship is in jeopardy. If you post a GPA below 3.0 (Academic Probation) in any term thereafter, you will lose your assistantship.
- 3) make satisfactory progress toward the completion of a thesis or dissertation.

Graduate studies are a full time endeavor and students receiving assistantships are expected to apply all time not spent on their TA or RA duties towards their academic and research program. All Graduate Assistants (TAs and RAs) must agree not to accept employment outside the University unless written permission is obtained from the Department. Graduate Assistants are expected to be resident on campus for the duration of their contracts (Fall, Spring, and/or Summer) unless they are performing off campus research activities such as fieldwork, travel to conferences, etc. Even if you are on a TA for only Summer A or Summer B, you should be utilizing the time you are not teaching to pursue your research. If you plan to be gone during any term for more than 1 week at a time while under contract, you should first get the approval of the Chair and the Graduate Program Director.

Teaching Assistantships

Teaching Assistantships are provided by the College of Arts and Sciences in exchange for instructional or curatorial duties. Students whose native language is other than English must also pass (i.e., score at least 50 on) the Test of Spoken English (TSE) in order to receive a Teaching Assistantship. For the 2008-2009 term, the stipend awarded for a TA is approximately \$15,500 (M.S.) - \$22,000 (Ph.D.) per year. The Assistantship provides a partial waiver of tuition expenses (9 credits in Fall and Spring, 6 credits in Summer). In addition, first-time TAs should register for 1 additional credit of Teaching

Geosciences (GLY-6941) and attend the 2 day “Introduction to Teaching” workshop held in August the week before the start of classes.

The tuition waiver included with a TA will only cover the cost of graduate level courses. Students are responsible for the cost of any courses taken at the undergraduate level (4000 or below). In addition, Florida residents are responsible for ~\$1100 per year in miscellaneous fees. Out-of-state Students are responsible for ~\$1900 per year. These amounts are set by the University and are subject to change. Please see the University Catalog or consult the Graduate Program Director for more information.

TA duties will normally include teaching 2 undergraduate laboratory sections per term, but may include other tasks such as grading or curatorial duties. Your teaching assistantship is awarded with the provision that you fulfill certain duties in conducting the classes/labs that you are assigned. These duties are:

- 1) To conduct the labs from the first week through the last week of the term, and for the full length of time allotted for the class/lab.
- 2) To notify both the lab manager and the chairperson when a lab class has been cancelled.
- 3) To conduct student evaluations at the end of the term.
- 4) To turn in grades on time, to avoid a grade of NR on student transcripts.
- 5) To participate in field trips associated with the course.

In addition, you are expected to cover the material indicated by the Laboratory Manager, for GLY 1010L, and by the lecture instructors for other courses with labs.

Teaching Assistant Evaluations: TAs are evaluated once each semester by a faculty member. Normally, TAs will be evaluated on the teaching of a lab section by faculty who teach the corresponding lecture. Criteria used in the evaluation include organization and clarity of instruction, preparation, professionalism and appearance, spoken English, timeliness of grading, record-keeping, grading, exam writing and competence with subject. Faculty will observe the classroom teaching of TAs and will have access to copies of quizzes, grade books and other materials. Students are provided a copy of the evaluation results and may discuss them with the evaluating faculty and/or respond to them in writing.

Research Assistantships

A limited number of research assistantships (RAs) are also available, which permit graduate students to conduct their research without teaching responsibilities. Most RAs are funded from an external grant obtained by your advisor, so you will be required to conduct research on the project funded by the grant. In most cases, this work will form part of your M.S. or Ph.D. research. The same policies, full-time registration and academic requirements for TAs apply to RAs. In some cases, a RA may provide a higher stipend level than and cover fees not provided by a TA, depending on grant budget and availability.

Note: Grant writing is an essential component of an academic career. Graduate students often assist their advisors in the preparation of research proposals to funding

agencies. Such assistance will increase the chances of obtaining an RA and will provide valuable experience in the process of grant writing.

University Fellowships:

Presidential Fellowships: These highly competitive awards are intended to recruit exceptional graduate students to enroll full time in a doctoral degree program at Florida International University. The fellowships provide \$25,000 per twelve months for three years. The first year, and either the second or third year, are fellowships with funds provided by the University Graduate School and no obligations on the part of the recipient other than to make excellent progress in his or her degree program. In the second or third year, the student will be required to serve as a Graduate Teaching Assistant. To qualify, applicants must have a combined GRE score (Verbal + Quantitative) of at least **1300**. These fellowships are available to current FIU graduate students. Faculty will apply on your behalf if your qualifications appear to qualify you for an award. Presidential fellows should be well positioned to apply for a Dissertation Year Fellowship to fund their fourth year.

Presidential Enhanced Assistantships: Presidential Enhanced Assistantships are awarded to exceptionally qualified incoming students who are enrolling full time in a doctoral program. This program enhances the standard TA award by \$5000 to \$15000 per year for four years. To be competitive for a PEA, students must have either verbal + quantitative GRE of at least 1300 or a GRE score at least 300 points above the three year running average of doctoral students awarded assistantships.

Doctoral Evidence Acquisition Fellowships: Doctoral Evidence Acquisition fellowships provide financial support to doctoral students during the phase of their dissertation research when they need to commit intensive time and effort toward the collection of evidence they will use to answer their research question. The fellowship provides \$8,300 per term for up to three terms (one year). Applicants must have advanced to Candidacy and have form D-3 on file with UGS before the term of the fellowship.

Dissertation Year Fellowships: Dissertation Year Fellowships are awarded to exceptional Florida International University doctoral candidates during their last academic year. The Fellowships provide a stipend of \$25,000 for 12 months, or \$2083.33 per month through the month in which the dissertation is successfully defended.

Dissertation Year Fellowships are highly competitive. To be competitive, doctoral candidates will hopefully have one or more manuscripts from their dissertation research published or in-press by the application deadline. Completed applications should be submitted to the Graduate Program Director by the last Friday in March. If more than one application is received in a given year, the Graduate Committee will rank the applications according to quality and submit the top two applications to the Graduate School.

For more information on these and other University Fellowships, see the UGS website: <http://gradschool.fiu.edu/fellowships.html>.

Externally Available Fellowships

Several Federal and private agencies provide Graduate Fellowships for Ph.D. students. In many cases, stipends for these programs are considerably higher than those for assistantships available at FIU. These programs are generally very competitive and require a well written, well thought out proposal. If you are interested in applying for one of these programs, you should allocate sufficient time and work closely with your advisor to ensure the best possible proposal. Programs include:

- ∞ National Science Foundation
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=6201
- ∞ NASA <http://fellowships.hq.nasa.gov/gsrp/nav/>
- ∞ US Department of Defense <https://www.asee.org/ndseg/>

Announcements of additional fellowship programs and opportunities are distributed frequently via e-mail by the GPD and Graduate Administrator.

Travel Grants

Students are encouraged to seek out and apply for grants to support for fieldwork and travel to professional meetings. The College of Arts and Sciences will support graduate student travel to present papers at professional meetings for an amount up to \$200 in an academic year. Additional funds may be available through the Graduate Student Association or Departmental sources. Support for student travel to professional meetings also may be obtained by applying to professional organizations such as GSA, AGU, or AAPG.

Other Information

Annual Progress Report and Progress Towards Degree

All students in the M.S. and Ph.D. programs are required to submit an annual progress report each January in order for the Department to evaluate progress towards the degree. This report lists milestones to date in the program and a listing and description of coursework, research, and professional activities during the previous calendar year (January 1st – December 31st). A report template is available from the Graduate Program Director and the Department web site.

Students should review the report with their advisor for accuracy and forward the report with the advisor's signature to the Graduate Program Director. The annual report will be reviewed by the Department Graduate Committee and will form the basis for an annual evaluation to be placed in your file.

All students in the Program must maintain satisfactory progress towards the degree. Failure to meet established timetables for forming a Thesis/Dissertation committee, formulating an acceptable Thesis/Dissertation proposal, scheduling required Qualifying and Candidacy Exams, and completing Thesis/Dissertation research all constitute unsatisfactory progress towards the degree. Students who fail to maintain satisfactory progress towards the degree may be subject to loss of financial aid and dismissal from the Program.

Florida Residency

The University will only pay a U.S. student's out-of-state tuition for one year. All students seeking financial support who are eligible (U.S. Citizen or resident alien) must establish Florida residency. Establishing Florida residency will save you money on fees and will allow the Department to support additional graduate students. All eligible students with Departmental support are required to take the necessary steps to establish Florida residency.

A Florida "resident for tuition purposes" is a person who has, or a dependent person whose parent or legal guardian has, established and maintained legal residence in Florida for at least twelve months. Residence in Florida must be as a bona fide domicile rather than for the purpose of maintaining a residence incident to enrollment at an institution of higher education. **Living in the FIU Student Housing will not qualify you for Florida residency.** To qualify as a Florida resident for tuition purposes you must be a U. S. Citizen, permanent resident alien, or legal alien granted indefinite stay by the Immigration and Naturalization Service. International students entering on F1 visas are ineligible for Florida Residency Status.

Documents supporting the establishment of legal residence must be dated, issued, or filed **12 months before the first day of classes** of the term for which a Florida resident classification is sought. All documentation is subject to verification. Therefore, it is extremely important that new graduate students establish the following documentation immediately after arriving in Miami:

- ∞ Florida Drivers License or ID card
- ∞ Florida Vehicle Registration and Title (if applicable)
- ∞ Voter Registration Card (if applicable)
- ∞ Copy of tax return
- ∞ Copy of Employment Agreement
- ∞ Apartment Lease with your name on it.
- ∞ Power Bills, Telephone Bills, etc.

Florida residency is established by submitting a Residency Reclassification Application available online and in the Registrar's office. All questions on residence requirements should be directed to the registrar's office or the University Graduate School.

Changing Programs

A fully admitted student may apply to change graduate degree programs (M.S. to Ph.D., Ph.D. to M.S., or change from another department) without paying an additional application fee. In all other respects, a change of a graduate degree program is handled as a new application and is evaluated as such by the department. Applicants must meet all requirements of the new degree program. All changes in program must be approved by the Department and the Student's advisor. A [*Change of Graduate Degree Program*](#) form must be filed with the UGS.

Enrollment and Time Limit Requirements

Graduate students must maintain active status, which entitles them to use University resources. M.S. programs require continuous enrollment of at least 1 credit hour per term (including the summer term) to maintain active status in the program. Doctoral programs require continuous enrollment of at least 3 credit hours per term. International students and students supported with Assistantships are required to be enrolled full-time (9 credits Fall & Spring, 6 credits Summer).

A lapse in enrollment for three consecutive terms requires that the student apply for readmission. A student who finds it necessary to be excused from registration in a graduate degree program for a semester or more must formally petition for a *leave of absence*. Leave time must be approved by the program director and the Academic Dean.

All requirements for the Masters Degree, including successful completion of a Thesis, must be completed within 6 years of first enrollment in the Masters program. All requirements for the Ph.D., including successful completion of a dissertation, must be completed within 9 years of first enrollment in the program. Students who do not complete their Thesis/Dissertation within these time periods may apply for an extension by filing a *Request for Exception to Graduate Requirements* with the Graduate School.

Contact Information

University Graduate School (UGS), Room PC231, 305-348-2455

Dean: Dr. George Walker

<http://gradschool.fiu.edu>

College of Arts and Sciences, Room ECS449, 305-348-2038

Dean: Dr. Kenneth Furton

Associate Dean: Dr. Susanna Rose

<http://cas.fiu.edu/>

Department of Earth Sciences, Room PC344, 305-348-2365

Chair: Dr. Brad Clement, PC318, clementb@fiu.edu, 305-348-3085

Graduate Program Director: Dr. Andrew Macfarlane, PC314,
macfarla@fiu.edu, 305-348-3980

Department administrator: Bonnie Boddicker, boddicke@fiu.edu

Graduate administrator: Cary Machado, machadoc@fiu.edu

Graduate teaching coordinator: Dr. K. Panneerselvam, PC342A, kpanneer@fiu.edu

Academic calendar: <http://registrar.fiu.edu/index.php?id=1402>

UGS deadlines for thesis and dissertation: <http://gradschool.fiu.edu/dates1.htm>

College of Arts & Sciences deadlines (generally about 1 week before UGS deadlines):

<http://www.fiu.edu/~casdean/gradates.htm>