

REGULATIONS FOR MASTER'S DEGREES

DEPARTMENT OF BIOLOGICAL SCIENCES FLORIDA

ATLANTIC UNIVERSITY

(Revised September 2016)

(use hyperlinks in blue to access websites & documents directly)

I. GENERAL PROCEDURES AND REQUIREMENTS

A. Admission Procedures

Apply to Graduate College <http://www.fau.edu/graduate/applyonline/index.php>

Must complete all application requirements by the respective deadlines below for application to be reviewed.

Fall Term = January 15; Spring Term = October 1

Admission will be based upon the following:

- 1) **Academic Record**
 - a) **Thesis, Non-Thesis Option 1, and Non-Thesis Option 2 (MST)** require **3.0 or better average on the last 60 hours** of undergraduate credits or established graduate level proficiency
 - b) **Professional Science Master in the Business of Biotechnology (PSM-BB)** require **3.2 or better average on the last 60 hours** of undergraduate credits or established graduate level proficiency
- 2) **Letters of recommendation** (three are required; submitted electronically via Graduate College application process)
- 3) **Statement of goals and interests**
- 4) **Graduate Record Examination** (minimum GRE scores of **Verbal = 151** and **Quantitative = 148**) (GRE scores older than 5 years will not be accepted).
- 5) **Graduate Student Biology Faculty Advisor Verification Form** (submitted electronically via Graduate College application process). See section B. Advisor & Graduate Supervisory Committee for Faculty Advisor Requirements

Although an undergraduate degree in Biological Sciences is the usual mode of preparation, applicants from other fields of science such as mathematics, computer sciences, physical sciences, and social sciences are welcome and considered individually. Undergraduate training is expected to include introductory biology, calculus, physics, and biochemistry. Deficiencies in these preparatory courses can be corrected by taking courses or by passing equivalency exams. The student's Advisor and Graduate Supervisory Committee will be responsible for deciding which of these deficiencies must be corrected before the student completes the graduate degree. Additionally, up to 1/3 of the credits required for a degree track might be taken at FAU as a non-degree seeking student and applied to their graduate degree requirements. Master's programs may accept a maximum of 6 graduate credits earned from another institution beyond a baccalaureate degree (University Catalog for Transfer Credit Policy).

Applicants who show promise, but fail to meet the department's minimum standards, can be admitted on "conditional status." Such students must complete a minimum of two (2) graduate courses taken for a letter grade (not S/U) with a minimum of 'B' grade in each class. Satisfactory performance in these courses will enable the student to be reevaluated by the MS Graduate Programs in Biology Committee for official entry into the graduate program. Excluding summer terms (when graduate class offerings are limited), conditionally-admitted students should complete the two (2) graded courses in their first term (either fall or spring, depending upon when they were admitted).

Students who are accepted must register for classes for the term in which they were accepted - there are no deferments. Students who do not register in their initial term will have their records deactivated and, thus, will need to reapply if they wish to be considered for future enrollment.

B. Advisor & Graduate Supervisory Committee

FAU Biology Departmental Advisor

Prior to acceptance into the graduate program, each student must have an **FAU Biology Departmental Advisor** (i.e., whose formal appointment is in the Biology Department; please see the following link showing Biology Departmental Faculty - http://biology.fau.edu/home/biology_ms_program_faculty.php with the Graduate Faculty or Associate Graduate Faculty (if

approved by the Biology Department) designation, who agrees by completing the Graduate Student Biology Faculty Advisor Verification form to supervise the student's graduate program <http://biology.fau.edu/formsandpolicies/M.S.-Sponsor-Verificaion-Form.pdf>

Affiliate Faculty (formerly called Courtesy Appointments) are non-FAU employees who can be appointed as Graduate Faculty Associate Graduate Faculty, or Graduate Lecturers and at most, can only co-chair Master's Committees. The Graduate College will maintain the updated list of approved Graduate Faculty and Associate Graduate Faculty for the University.

Additionally, following are the formal definitions, policies and procedures for Appointments in Biology within the purview of the Graduate College policy:

Graduate College Policy: *All thesis/dissertation committee members **must** obtain **Graduate Faculty status** otherwise the Graduate College will not recognize their signatures on a thesis/dissertation.*

FAU Faculty (Biology and non-biology faculty members) must be added to the Graduate Program Faculty list for the Program in which they wish to participate and then added to the Graduate College's Graduate Faculty list by that Program.

Non-FAU Faculty (faculty employed by another university or institution) must first become affiliates, then be added to the Graduate Program Faculty by the Program Committee and then added to the Graduate Faculty.

1. **Affiliate Status** (external/non-FAU Faculty)
 - a. **Per the Graduate College and COS:** Non-FAU faculty must obtain Affiliate status before they can obtain Grad Faculty status
 - i. Voted in as Affiliates by Biology Faculty and added to the banner system by COS (obtain Z#, fau login, library access, etc.)
2. **Joint Appointments** (Non-biology, internal FAU Faculty)
 - a. Formal interdepartmental/cross-college association (letter on file with both depts./colleges)
 - b. Voted on by Biology Faculty
 - c. Joint appointments will usually have already obtained Graduate Faculty Status through their own department (provided that their department offers at least on graduate program)
 - i. If they have not, their home department does not have a graduate program of their own, Graduate Faculty Status must be voted on within Biology (Biology must submit an application to the Grad College on their behalf)
3. **Graduate Program Faculty Status** (Internal and external faculty)
 - a. Program Faculty Status must be voted on by the Graduate Program in which the individual wishes to participate
 - b. The Program Faculty list is maintained internally by the program/concentration
4. **Graduate Faculty Status** (FAU and Non-FAU Faculty)
 - a. **For MS Program Faculty**
 - i. Candidates are simultaneously voted into MS Program Faculty and Grad Faculty status by the MS Program Committee
 - ii. A Graduate Faculty application is then submitted to Grad College through COS (faculty list maintained by Graduate College—available on GC webpage)

Procedures for Committee Formation

During the first semester (or early in the second semester) the student and their Advisor will form a Graduate Supervisory Committee, which will guide and facilitate the student's progress toward completion of their Master's degree. This committee will consist of no fewer than **3** Biology Graduate Faculty or Associate Graduate Faculty members, including the Advisor who acts as chair. An optional **4th** (or more) member may have non-graduate faculty status and may also be from outside the Biology departmental faculty, but must at least hold the rank of Master degree or higher. Changes in the committee composition, including the Advisor, must be approved by the MS Graduate Committee.

- 1) In consultation with your Advisor, contact (no later than term 2) two additional Biology Faculty members to serve on the Graduate Supervisory Committee. The Advisor for all PSM-BB students will be designated by the Department, and the MS Graduate Programs in Biology will represent the rest of the committee.
- 2) Official verification of the Graduate Supervisory Committee must be completed in writing. Please download the Committee Formation form at: http://biology.fau.edu/pdf/MS_Supervisory_Committee_Membership_Form_2012.pdf
- 3) Each professor agreeing to serve on the committee must sign the form, which is then turned in at the Biology Office.

C. General Academic Requirements

Only graduate students enrolled for 9 semester hours are considered "**full-time.**" **Students must maintain a cumulative, minimum grade point average of 3.0 [B] each semester.**

Passing grades: The grades of "A" through "C," and "S," are passing grades. Note: The grades of "B-," "C+" and "C," while considered passing for undergraduate students, are indicative of unsatisfactory work for graduate students and may not be accepted for some courses.

Failing grades: The grades of "C-," "D+," "D," "D-," "F" and "U" are failing grades. No credits are earned in courses in which grades of "AU," "CR," "F," "I," "U," "W," "WM" or "ZR" are received.

The student's Graduate Supervisory Committee may, at its discretion, require reading proficiency in a foreign language. If it does, the student must be certified by the Department of Language and Linguistics. Certification is generally given if the student has intermediate language skills, as evidenced by any of the following: two (2) semesters of college level foreign language; eight (8) CLEP credits in a foreign language; fluency in a foreign language; or passing an exam.

D. Mandatory Program Meeting

Annually (or biannually) the MS Graduate Program in Biology will have a meeting required of all students in the program. **Program requirements, updates, introductions, orientation and question/answers will be among the topics. Such meetings will likely be the only time all students in the program will meet simultaneously. Thus, they are mandatory.** Students must petition the MS Graduate Programs in Biology Committee at least 1 month in advance of such scheduled meetings for approval, to be excused from attending. Those who miss such meetings without prior approval are considered out of good standing, and risk removal from the program.

II. DEPARTMENTAL FINANCIAL SUPPORT

A. Teaching Assistantships

"Full-time" graduate students (i.e., enrolled in a minimum of 9 credits) may be eligible for a Teaching Assistantship (T.A.)(=20 hrs/wk), which will provide a salary and partial coverage of tuition (including waiving out-of-state tuition rates for non-Florida residents). For the official Graduate College policies, please see section D, below, **Tuition Benefits Policy for Graduate Students.**

T.A. assignments are distributed based on the following **Priority System:**

- *First and second year MS Thesis students making adequate progress have highest priority over both non-thesis and PSM-BB students (and support is normally given for a two year period only)
- * Students admitted under normal status have priority over those admitted conditionally (until those latter students are officially accepted; see Admission Procedures section on p. 1)
- * Subject knowledge and teaching ability/past performance
- * Because of the relatively few number of summer TA positions (fewer courses are offered in the summer), and Integrative Biology PhD students are given highest priority for such positions, all MS students are lower priority. When TA positions are available to MS students, the basic priority system above will be used to make assignments. However, **MS students should not plan on getting a summer TA more than one time.**

Performance Evaluation: Students are expected to demonstrate dedication to their T.A. duties. This includes teaching and administering the required materials presented by the Laboratory Supervisor and/or assigned Professor.

Students also must maintain excellence in their own course work; **a cumulative, minimum grade point average of 3.0 [B] must be maintained each semester in all course work attempted.** For those in research tracks, competency and progress in research must be demonstrated and maintained.

Performance as a TA is evaluated and monitored continuously during the teaching assignment by either the Laboratory Supervisor and/or Professor. TA academic progress and success is evaluated annually by the Graduate Program Committee (see **Annual Evaluation** section IV-B below).

T.A. Contract Termination: T.A. contracts can be terminated at any time (including those underway), and loss of consideration

for future T.A. support, in cases where there is serious dereliction of duties. Additionally, graduate students on academic probation will not normally be considered for T.A. positions.

Mandatory T.A. Meetings: TA's are all required to attend mandatory orientation meetings prior to each term – so do not schedule commitments that would conflict with these meetings. Those who do not attend these required meetings may have their contracts cancelled. Students must petition the MS Graduate Programs in Biology Committee at least 1 month in advance of such scheduled meetings for approval, to be excused from attending. Annual or biannual mandatory MS Program meetings must also be attended by **ALL** graduate students in the program (see Mandatory Program Meeting section, above)

B. Teaching Assistantships for International Students

As part of our commitment to excellence in teaching, Florida Atlantic University has established a minimum level of English language and teaching proficiency by which all international graduate students may work as graduate teaching assistants. To assure that these standards are upheld, the Graduate College in conjunction with the Department of Teaching and Learning has established the Seminar for International Teaching Assistants (SITA).

SITA is a multi-purpose program designed to prepare international graduate students to teach undergraduate students at FAU. Such preparation includes developing an understanding of the teaching role in American university classrooms, providing training in English pronunciation and intonation, practicing classroom communication skills and instructional strategies, and assisting students during the first semester of teaching at FAU.

All international teaching assistants are required to successfully pass a panel review prior to beginning their teaching assignments. The SITA program takes place the week before fall semester classes commence. There are nine additional sessions offered throughout the fall semester, for a subset of teaching assistants requiring additional language and teaching development. Contact the Graduate College or see the following link for additional information (Link available soon)

C. Research Assistantships

Research assistantships (RA) might be available. Please check with your advisor about availability.

D. Tuition Benefits Policy for Graduate Students (ratified by the Graduate College – March 2013)

Throughout this section, the term *graduate assistant(s)* is used generically to represent a graduate student who is receiving tuition benefits related to employment as a graduate research assistant, graduate teaching assistant, graduate research associate, graduate teaching associate, or graduate student worker. Graduate assistants are eligible to receive tuition benefits for up to 27 credit hours in a given academic year, provided **all requirements** listed below are met:

1. The appointment period must be continuous within the official beginning and ending dates of the academic semester or summer session.
2. The level of tuition benefit available to students is driven by the FTE of the appointment.
 - a. To receive 100% tuition benefits in the fall and spring semesters, students must have a 0.5 FTE appointment (20 hours per week) and be classified as full-time graduate students. (Refer to the *Full-Time Graduate Student Classification Status* section below.)
 - b. Students who have met the conditions in (a) above during the previous fall or spring semester may receive 100% tuition benefits during the summer term with no minimum enrollment requirement provided they have at least a 0.25 FTE appointment.
 - c. Students with FTE employment conditions between 0.25 and 0.5 receive a tuition benefit percentage equal to two times the FTE appointment provided they are enrolled full time.
 - d. Except as provided by (b) above, students with an enrollment status less than full time (as defined by the *Full-Time Graduate Student Classification Status* below) are eligible to receive 50% tuition benefits provided their appointment is at least 0.25 FTE.
3. All credit hours paid by this tuition benefit must be necessary to complete the graduate degree.
4. The number of credit hours for which graduate students can receive tuition benefits is set at 10% above the published credit hour total for the degree program. Courses taken to remove deficiencies as indicated on the Plan of Study are allowable and do not count toward the 10% limit.
5. An approved Plan of Study is required to receive tuition benefits beyond the second semester of the assistantship. Students receiving tuition benefits as part of an assistantship are required to file a Plan of Study and obtain final approval from the Graduate College by the end of the second semester of the assistantship.

6. Students must maintain a cumulative GPA of 3.00 based on the degree requirements as stipulated on the approved Plan of Study.

All graduate assistants receiving tuition benefits for the first time in fall 2013 or beyond will be subject to this policy. Graduate assistants who received tuition benefits prior to the fall 2013 term will not be held to this policy until fall semester 2015. Their benefits will be governed by the 2009 Eligibility Guidelines for Graduate Assistants to Receive Tuition

Benefits.

Graduate assistants who resign or terminate their assistantship prior to completing the continuous employment period will forfeit all their tuition benefits and must repay the university the full amount of tuition paid by this benefit for the term in which they were enrolled.

Programs requiring enrollment in 30 credit hours in an academic year (as indicated in the university catalog) will be granted tuition benefits to cover these credits.

The last day to receive tuition benefits in any given semester is the “last day to drop/add courses without consequences” as indicated in the FAU academic calendar. After this date students will not be eligible to receive tuition benefits in that semester. To use tuition benefits for graduate research assistants, prior approval by the Dean of the Graduate College is required. If allowed by the funding source, the Principal Investigator(s) shall budget for research assistants at the in-state tuition rate. Should a non-Florida resident be employed, the non-resident fee will be funded by the university’s tuition waiver budget. To use tuition benefits to support graduate assistants employed in non-academic offices, prior approval by the Dean of the Graduate College is required.

To use tuition benefits to support graduate teaching assistants and graduate assistants employed in the academic colleges, the College Deans will be provided tuition benefit budgets each year by the Provost based on past use and projected needs prior to budget construction.

In order to award an assistantship, both the stipend and accompanying tuition benefit must be available. The amount of the tuition benefit cannot be manipulated, reduced, or eliminated to fulfill this requirement.

Graduate assistants may not work more than a total of 20 hours per week for all appointments combined during the fall and spring semesters. However, graduate assistants may work additional hours with prior approval by the Dean of the Graduate College using Form 10 – Request to Waive a University Requirement.

Graduate assistants in their last semester of study are to enroll only in the number of credit hours necessary to fulfill their degree requirements. Graduate assistants who have completed all degree requirements as listed on their Plan of Study but must remain enrolled in order to complete their thesis or dissertation are to enroll only in one thesis/dissertation credit hour. Graduate assistants who take reduced credit hours under these conditions can petition to be classified full-time graduate students using the procedure as outlined in the section below entitled *Full-Time Graduate Student Classification Status*. International students affected by this policy must consult with the ISSS Office regarding the Reduced Course Load requirements to assure compliance with U.S. Immigration laws.

A reduced enrollment status can impact disbursement of financial aid and qualification for health insurance, depending upon the rules of the lending institution and insurance provider. It is the responsibility of the student to know the enrollment status requirements of individual lending institutions and insurance providers.

It is the student’s responsibility to pay all “student fees.”

Exceptions to these requirements may only be made with prior approval by the Dean of the Graduate College.

Full-Time Enrollment and Petitions

For fall and spring semesters: Graduate students registered for 9 or more credits are considered full-time, registrations for 7 credits are considered 3/4 - time and registrations for 5 credits are considered half-time. For the summer semester: Graduate students registered for 6 credits are considered full-time, registrations for 5 credits are considered 3/4-time and registrations for 3 credits are considered half-time.

Graduate students may petition to take fewer credits and maintain full-time graduate student status. Students must meet the eligibility guidelines below to submit the petition (Form 14 - Graduate Equivalent Full Time Status Waiver) and must satisfy at least one of the following four conditions:

1. Master's degree students who have completed all required coursework as listed on their approved Plan of Study and are only enrolled in thesis credits may petition to be classified as full-time graduate students with an enrollment of at least 3 credits.

2. All graduate students who have completed all coursework and thesis/dissertation credits as listed on their approved Plan of Study and are only enrolled to satisfy continuous enrollment requirements to complete their thesis or dissertation may petition to be classified as full-time graduate students with an enrollment of at least 1 credit.
3. All graduate students in their last semester of study, as verified by their approved Plan of Study, may petition to be classified as full-time graduate students with an enrollment of the remaining credits needed to complete their degree.

Eligibility Guidelines

The following eligibility guidelines must first be satisfied prior to submitting the petition to seek full-time graduate student status. A separate petition must be submitted for each term in which this status is being sought. The student must have:

1. An approved Plan of Study on file in the Graduate College;
2. Maintained continuous enrollment during the previous 12-month period;
3. Enrolled in the minimum number of credits as stipulated by one of the four applicable conditions above.

III. MASTER'S DEGREE OPTIONS, REQUIREMENTS, AND EXAMINATIONS

A. Options

The department offers five Master of Science degree programs: Thesis Option (M.S.- 36 hrs), Non-Thesis Option #1 (M.S.- 36 hrs), Non-Thesis Option #2 (M.S.T.- 30 hrs) and PSM-BB Option (M.S. – 34 hrs). Below are brief descriptions of each program:

Thesis Option requires completion of a research project and thesis. This option is tailored for students interested in doing research or contemplating graduate work for a Ph.D. degree.

Non-Thesis Option #1 is designed for students who wish to improve their knowledge in the biological sciences through a rigorous series of courses and exams, or for Integrative Biology PhD students choosing Biology for a Master's Along The Way (MALW) degree.

Non-Thesis Option #2 or **Master in Science Teaching** is designed for students who wish to satisfy requirements for teaching in high school or junior college. In addition to regular course work, students in this option may also elect to complete a Research Report (a short paper describing the results and significance of a circumscribed research project). Depending upon background, students may also be required to take 6 hrs of Education Internship credits.

Professional Science Master in the Business of Biotechnology (PSM-BB) Option is intended as a terminal degree for students interested in entering the workforce following completion of the degree. The program is tailored for the student with undergraduate training in biology or chemistry who is primarily interested in working in the business-side of the emerging biotechnology industry. The program includes traditional classroom courses in both business and science that culminates in two internship experiences. One internship provides experience working side-by-side with a research scientist. The second internship exposes the student to the business-side of the biotechnology industry.

B. Specific requirements for each master's option

M.S./Thesis

This M.S. degree requires a minimum of 36 credits (half (18) must be Biology Department courses): twelve (12) hrs. of course work at the 6000 level (exclusive of any research credits); six (6) hrs of Master's Thesis (BSC 6971); and two (2) hrs. of Thesis Seminar; one (1) Seminar credit is given for presenting a thesis proposal seminar, which should be given in the fall or spring semester of year one; another Seminar credit is given for presenting a thesis results seminar, which should be given in the fall or spring of year two. No further Thesis Seminar credits count toward fulfilling degree requirements. Students can defend their theses either immediately after the thesis results seminar, or at another time (summer semesters included). The thesis defense is open to all Biology faculty, but only members of the student's Graduate Supervisory Committee can sign off on the thesis. All seminars and thesis defenses must be announced via poster and email at least one week in advance. Effort will be made to schedule seminars to maximize attendance; and all students and faculty are encouraged to attend.

Of the remaining sixteen (16) credits required for the degree, no more than six (6) can be taken in Thesis Research, and no more than eight (8) may be taken in courses at the 4000 level. Remaining credits must be completed in courses at the 5-6000 level.

Before a thesis topic is approved by the Graduate Supervisory Committee, a student may explore the feasibility of a thesis project. Students doing such *exploratory research* can receive up to 3 hrs. of credit in Directed Independent Study (BSC 6905) and up to 3 hrs. of credit in Thesis Research (BSC 6971). Thereafter, no more research credits can be taken until the research topic has been approved by the student's Graduate Supervisory Committee. **No more than 3 DIS credits may be counted towards this degree.** *To be considered on schedule, the research topic should be approved by the Graduate Supervisory Committee before the end of the student's 2nd term of graduate study.* **Complete Comprehensive Exams** (see Section D)

M.S./Non-Thesis

This M.S. degree requires a minimum of 36 credits (half (18) must be Biology Department courses), of which 18 credits must be at the 6000 level or higher. Additional requirements consist of: (1) two courses in which the student presents a formal seminar (verified by Department during Graduation Audit check), (2) courses at the 5000 or 6000 level (7 hrs), and (3) electives at the 4000, 5000 or 6000 level (9 hrs). No more than three (3) DIS credits may be counted towards this degree. **Complete Comprehensive Exams** (see Section D)

Integrative Biology PhD students choosing Biology for a Master's Along The Way (MALW) degree will be verified for completion of degree requirements by the Department during the Graduation Audit check. Please consult with the IB PhD advisor early in your matriculation to ensure you are following a curriculum that would satisfy the requirements for the M.S./Non-Thesis Option #1 tract.

M.S.T./Non-Thesis or Master in Teaching

The M.S.T. degree requires a minimum of 30 credits, of which 15 hrs of credits in 6000 level Biology Department courses; two courses in which the student presents a formal seminar, and 9 hrs of electives in 4000, 5000 or 6000 level courses. No more than three (3) DIS credits may be counted towards this degree. **Complete Comprehensive Exams (see Section D).** The student must take six (6) hrs of graduate credit in approved courses in education or another cognate field if he/she plans to teach in high school and holds a Rank III secondary certificate, or if the student intends to teach in community college. **Six (6) additional credits of Education Internship (EDG 6940) are required, except for those with two years of teaching experience at a secondary school or junior college level.** Such internships can be completed by doing the following:

1. Enroll in EDG 6940(6 credits) and pick one of the below.
 - a. Do an internship with one of the local public schools (verified by local school contacts). There is no form to be completed but rather student independently lines up an internship opportunity. Once confirmed, the department will contact the FAU Education Department requesting permission for the student to register for the Education Internship (EDG 6940). At the end of the term in which the student registers for the internship, FAU Education Department will contact the Biology Department to verify the student has completed the internship successfully so that a Pass/Satisfactory grade can be applied. This latter confirmation will be done based on the teacher/school in which the student does the internship, and who verifies in writing that the internship was completed successfully.
 - b. Teach a laboratory course in the Biology Department (verified by the lab coordinator for time effort and teaching responsibilities).

Professional Science Master (PSM) in the Business of Biotechnology Option

This PSM program requires a total of 34 credits. There is a core curriculum of two required course (Biotechnology (*Biotechnology Business Development*; ENT 6188 and *Venture Creation*; ENT 6016) and two internships. The science portion of the program requires 15 credits and is flexible. Graduate level courses taught in the Departments of Biological Sciences and Chemistry & Biochemistry in the Charles E. Schmidt College of Science as well as graduate courses offered in the Charles E. Schmidt College of Medicine are acceptable with approval from the major advisor. The business courses require 9-credits from three of the following four courses:

Seminar in Entrepreneurship/Venture Management (MAN 6875)
Technology Commercialization Strategies (ENT 6186)

The program culminates with two 2-credit internships. One semester will involve interacting with research scientists at a biomedical institute (e.g. Scripps Florida or the Max Plank Institute of Florida) or a biotechnology start-up company. The second internship will involve interaction with the business and administrative side of the biomedical institute or company.

C. Switching Degree Options

Students are admitted to the MS graduate program in Biology for one of the four degree options listed above. However, **the Graduate College considers there to be only two distinct Biology MS Programs:**

- 1) M.S./Thesis, M.S./Non-Thesis *Option #1*, and M.S./Non-Thesis *Option #2 (Master in Teaching)*
- 2) PSM-BB

If circumstances should change and a student wishes to switch between the 3 options in Program Set #1 (above), then, after consultation with and agreement by their Graduate Supervisory Committee, they should notify the MS Graduate Programs in Biology Committee in writing of the change. Switching programs between Program Sets 1 & 2, will require a new application and application fee: e.g., switching from Thesis to PSM - BB.

For any switches, **an updated Graduate Student Faculty Advisor Verification form must be completed and signed by your new advisor and a New Committee Formation form must be completed** <http://biology.fau.edu/formsandpolicies/index.php>
Additionally, a new Plan of Study will be required.

D. Comprehensive Examinations

Completion of the Master's degree, **with the exception of the PSM-BB**, also requires that students **pass a Comprehensive Examination**, to be administered by the student's Graduate Supervisory Committee.

- 1) For students in the **M.S./Thesis Option**, the **Comprehensive Examination consists of a thesis defense, which focuses on the completed research project and the student's relevant knowledge base.**
- 2) For students in the **M.S./Non-Thesis Options #1 and #2**, the **Comprehensive Examination consists of a traditional, written test to ensure students have a broad knowledge base in Biology.** Originally, the department had all interested faculty members participate to ensure students had competent knowledge in all biology areas. We now require that only members of the student's Graduate Supervisory Committee give exams to the students. The student and his/her Graduate Supervisory Committee will select the **3 "specialty areas" covered in the exams** from the list below.

Microbiology specialty areas: Bacteriology
Cell Biology
Immunology
Molecular Genetics
Virology

Organismal specialty areas: Anatomy and Development
Behavioral Biology
Ecology
Evolutionary Biology
Neuroscience
Physiology
Systematics

Written Comprehensive Examination Format: To ensure that all **M.S./Non-Thesis Options #1 and #2** students are **examined in a thorough and equitable manner** within the **3 specialty areas**, the following are acceptable exam formats and expectations:

- a) Each written exam will be administered on the date agreed to by the student and their committee members.
- b) Each exam must cover one of the 3 chosen specialty areas (i.e., two committee members cannot cover the same specialty area).
- c) **Exams will consist of questions unknown to the student prior to administering the exam.**
- d) **Question types should require written responses; primarily, of essay and definition format.** In addition to expecting a broad knowledge base covered within the 3 specialty areas, assessing written communication skills of these students is also very important.
- e) **Exams should be of sufficient rigor and coverage thereby typically requiring significant study efforts by**

- Students** (which is why students are required to contact committee members the term prior to the actual exams). Committee members should provide students with reading and supplemental study suggestions upon request.
- f) The assumption will be that closed-book format will be used for the exam. If open-book format is used, such exams should be of sufficient rigor to be comparable to a closed-book exam. In either case, a specific time frame must be established when the student and committee member initially meet (i.e., term before) to schedule the exam (e.g., 3 hours for a closed-book exam; due in 24 hours for an open-book exam).
 - g) **Previous or current course work (and associated exams) cannot substitute for the Comprehensive Exams.**
 - h) **Research/summary/review papers cannot substitute for the Comprehensive Exams.** Such papers, however, may supplement the written exam, if this is required by a committee member (who must articulate this to the MS Graduate Programs in Biology office when the student schedules the exam).

Procedures for Scheduling/Completing Comprehensive Exams - M.S./Non-Thesis *Option #1 and 2*

- 1) **During the term prior (or earlier) to the term in which the exams will be administered**, students should contact committee members “individually” to ask for guidance (e.g., references, books) regarding how best to study for the designated subject area to be covered.
- 2) Student should also schedule a date(s) “individually” with each committee member. It is advised to schedule exams for different weeks, given the comprehensive nature of each exam. **Following are the deadlines for completing all exams for each term:**

Fall term = November 15
Spring term = April 15
Summer term = July 15

- 3) Once all of the exams are scheduled, and prior to the beginning of the term in which the exams will be given, students are required to send an email to the MS Graduate Programs in Biology office (rdixon@fau.edu) with the following information (please copy and paste the form information below into the email message):

Exam 1 – Content Area 1 = (see list above); Committee member name _____; Exam Date _____
 Format ___ closed-book ___ open-book; Time restrictions _____

Exam 2 – Content Area 2 = (see list above); Committee member name _____; Exam Date _____
 Format ___ closed-book ___ open-book; Time restrictions _____

Exam 3 – Content Area 3 = (see list above); Committee member name _____; Exam Date _____
 Format ___ closed-book ___ open-book; Time restrictions _____

Exam dates cannot be changed without written consent from the professor administering the exam

- 4) The MS Graduate Programs in Biology will then review the information for approval. Once approved, students and committee members will be notified. **Students cannot take any comprehensive exam without such prior approval.**
- 5) **Failure to pass any of the 3 examinations (i.e., each committee member’s exam) will require that the student be re-examined for the failed exam.** A failure to pass the second examination will result in immediate dismissal from the graduate program.
- 6) **Complete Comprehensive Examination Form** (available at Biology Department SC 136 or on Biology Website (<http://www.science.fau.edu/biology/masters/masters-forms.html>))
- 7) Committee members must forward scanned copies of both the exam questions and the student’s answers to the MS Graduate Programs in Biology office (rdixon@fau.edu) for Graduate College and/or Departmental verification. As with other grades, documentation must be retained for a minimum of 5 years.

E. Thesis Proposal and Defense Information

Proposal

The MS Graduate Program in Biology does not have a strict, required written thesis proposal format. Students should check with their advisor and Graduate Supervisory Committee for the format best suited to the particular discipline. Any format chosen should begin with a title page with the following: project title, student's name, and committee member names and signature lines for approval. Additional sections should include an abstract, introduction/background, objectives/research questions, proposed research and procedures, expected results, and literature cited. Additionally, although the University does not require submission of a written thesis proposal, the final written thesis must be submitted and approved by the University. Thus, students at the proposal-writing stage should also look at the current University thesis requirements:

<http://www.fau.edu/graduate/forms-and-procedures/degree-completion/thesis-and-dissertation/index.php>

After working with your advisor for approval (i.e., formulating and editing to get an approved draft), the thesis proposal should be sent to the remaining members of your committee. Simultaneously, ask them to consider several dates for presenting (via a seminar) your proposed research project. **Allow the committee members a minimum of 3-4 weeks to review your proposal before any scheduled seminar date.** Once a date is determined, **3 weeks prior to the approved date**, contact the MS Biology Office staff to schedule the seminar. Such advanced notice is required to ensure a room, and possibly remote access, can be scheduled. Additionally, written notices must be posted a minimum of 7 days before any scheduled date. Once the seminar has been presented, and after all non-committee members have exited the room, the advisor will poll the committee for approval of the project. **Approved proposals must be verified by the following:** 1) electronic copy of the written proposal with signed title page must be forwarded to the Biology Office (rdixon@fau.edu), 2) completed Thesis Proposal form (<http://biology.fau.edu/formsandpolicies/index.php>) and Rubric form (which your committee completes).

Defense

The final, approved thesis document will be published by the University. Although the University does allow disciplines to organize theses, to some degree, based on accepted discipline-specific guidelines, there are still specific formatting requirements. **All students at the stage of commencing writing the thesis should check on the most up-to-date requirements of the University here:** <http://www.fau.edu/graduate/forms-and-procedures/degree-completion/thesis-and-dissertation/index.php> It is also highly recommended that you attend the Thesis and Dissertation Formatting workshop.

<http://www.fau.edu/graduate/forms-and-procedures/degree-completion/thesis-and-dissertation/formatting.php>

Thesis editing, submission to the committee, scheduling of the thesis defense, etc., all follow protocols outlined in the Thesis Proposal section above. **Approved theses must be verified via the Thesis Defense form:**

<http://biology.fau.edu/formsandpolicies/index.php> and Rubric form (which your committee completes).

IV. PROGRESS TOWARD DEGREE COMPLETION

A. Plan of Study

The Graduate College requires that all students who have completed 9 credits must apply for candidacy via a **Plan of Study** forms, which must be submitted electronically. For instructions, please see the following link:

<http://www.fau.edu/graduate/forms-and-procedures/index.php>

Biology requires that all (full and part-time) students complete the Plan of Study prior to the beginning of their 2nd semester (NOTE: you cannot graduate in the same term in which this form was completed and submitted).

B. Scheduling and Adequate Progress

Students working full-time toward a Master's degree are expected to complete all requirements within two (2) years after entering the program. All graduate students must form a Graduate Supervisory Committee during their second semester of graduate study.

For M.S. Thesis option students, a Thesis Proposal Seminar must be presented no later than the third semester of graduate study; in a subsequent term a Thesis Results Seminar should be presented no later than the fourth semester of graduate study, preferably during the same week that the student defends their thesis. **Students presenting either type of seminar must contact the Biology office at least 3 weeks prior to the selected date** to ensure that room reservations and video conferencing (if necessary) can

be arranged. Once such reservations/arrangements have been confirmed, the student will contact the Biology office again to arrange for the **production and posting (by the student) of flyers at least 1 week before the date of the seminar**. Students will have to reschedule such seminars if the above timelines are not followed (i.e., posting flyers for a seminar with less than a week's notice is not permitted).

A crucial component for adequate progress is the selection of an **appropriate thesis topic**; i.e., one that can be completed within a reasonable (1-1.5 yr) period, yet which maximizes originality and importance. It is the responsibility of the Graduate Supervisory Committee and the student to see that this objective is met. The schedule outlined below (Section VI) will be used by the MS Graduate Programs in Biology Committee to judge whether students supported by Teaching Assistantships are making "satisfactory progress in the program." Students attending Graduate School on a part-time basis must satisfy both their advisor and their Graduate Supervisory Committee that they are progressing with their degree requirements as rapidly as possible.

No student may take more than seven (7) years to complete a Master's degree.

Students who do not enroll for classes one term (Fall or Spring) can enroll the subsequent term without issue. However, **students that do not enroll for 2 or more consecutive terms must reapply to the graduate program.**

C. Annual Evaluation

Every year on **April 15 the Annual report will be due**. The student and his/her advisor are required to submit to the MS Graduate Programs in Biology Committee a form (which will be distributed to students a month before due) indicating (1) the semester/year in which the student entered the graduate program, (2) progress made by the student since entering the program (or since the previous year's report if the student is in his/her second year of study), and (3) plans for the upcoming year. **The report must be signed by both the student and advisor, and distributed to each member of the student's Graduate Supervisory Committee.** Failure to submit such a report by the deadline can result in the loss of financial (T.A.) support during the Summer terms, and each subsequent semester until the report is received and reviewed by the MS Graduate Programs in Biology Committee. The reports will serve, in part, as the basis for rank-ordering students that apply for continued T.A. support.

A complete schedule describing what constitutes adequate academic progress for each degree program follows (section VI). Support, in the form of a T.A., will not be given for more than two (2) years, except under special circumstances.

D. Good Standing

Students in **Good Standing** are those that meet the following *minimum* requirements:

- 1) Maintain a cumulative GPA of 3.0 and receive grades of B or higher in all graduate work
- 2) Meet all required deadlines such as Plans of Study, Thesis Proposal (for thesis students), Committee formation (when required), etc.
- 3) Attend all mandatory meetings (e.g., MS Meetings, TA meetings, IACUC for those working with vertebrates, Lab Safety)
- 4) Adequate and ethical performance as both a student in classes and as a TA (for those with such assistantships)

Students who do not comply with the following minimum requirements above will be placed in **Not in Good Standing** status. In such case, students will be required to schedule a meeting with the MS Biology Graduate Chair to discuss their situation, including a plan to get back into **Good Standing** as soon as possible. While in **Not in Good Standing** status, students are ineligible for Teaching Assistantships. Additionally, students who remain in **Not in Good Standing** status for 2 consecutive semesters risk removal from the program.

E. Communication Between Graduate Students and MS Biology Program

The MS Biology Program is large and geographically located among multiple FAU campuses. Thus, **email is the official communication form for the program**. As such, we require that all MS Graduate students use their FAU-assigned email. We suggest that students create a folder in their email client software specifically for our email communications. We understand that newly-admitted students may not yet have an FAU email address; so we will temporarily use private or non-FAU email addresses until such students have their official FAU email addresses.

F. Leave of Absence

Graduate students who find it necessary to temporarily suspend their studies may apply for leave of absence from graduate study. Leave of absence is intended for students who are unable to pursue their studies at all, rather than for students who are actively working on a thesis or dissertation after completing coursework. Leave of absence is approved by the Graduate College on the basis of the recommendation of the student's faculty advisor, department chair and college dean. To apply for a leave of absence, students use a Form 10-Request to Waive a University Requirement.

Degree-seeking students returning after an absence of more than one year will be subject to the following:

1. File a new graduate admissions application with appropriate documentation.
2. Re-establish Florida residency for tuition purposes.
3. Be in good academic standing (eligible to return) at FAU and at any institution attended since the last period of enrollment at FAU.
4. Provide official transcripts to the Graduate College from any institution attended since the last period of enrollment at FAU.
5. Submit proof of conformity to the Measles Immunization Policy of the State University System for graduate students under the age of 40 who have not previously submitted this information.
6. Students who were enrolled without being fully admitted into a graduate degree program will not be eligible to return.
7. Returning students will be admitted under the catalog guidelines in place at the time of re-admission.

V. GRIEVANCE AND APPEAL PROCEDURES

The Biology Department recognizes that these guidelines cannot anticipate all circumstances that may affect a student's progress in the Program. Therefore, exceptions to these regulations may be sought by the student through a petition, submitted to the MS Graduate Programs in Biology Committee. If this committee does not resolve the matter to the student's satisfaction, he/she may bring the matter before the Chair of the Biology Department who, in consultation with the faculty, will make a final decision.

VI. SCHEDULES AND DEADLINES FOR THE MASTERS DEGREE OPTIONS

Following are guides to assure that you are making adequate progress toward the completion of your respective degree. The Graduate Program Committee will also base its evaluation of your annual report on these schedules.

Master of Science/Thesis (36 credits)

Semester I

- Begin preliminary research studies (up to 3 hrs. of **DIS (BSC 6905)** or **Thesis Research (BSC 6971)**). Use Registration form at this link: <http://biology.fau.edu/formsandpolicies/index.php>
- Consult advisor and take courses that will help fulfill course requirements (see Specific requirements for MS Thesis option)
- Decide on your **thesis topic** and consult advisor to choose committee members
- Complete **Plan of Study** (must submit by end of 1st semester). Visit Graduate College website for online form and instructions: <http://www.fau.edu/graduate/forms-and-procedures/index.php>

Semester II

- Take courses that will help fulfill course requirements (see Specific requirements for MS Thesis option)
- **Choose committee members** in consultation with advisor; (see Advisor & Graduate Supervisory), complete **MS Supervisory Committee Membership Form**: <http://biology.fau.edu/formsandpolicies/index.php> (due by end of 2nd semester)
- Take research credits (up to 3 hrs. of **DIS (BSC 6905)** or **Thesis Research (BSC 6971)**). Use Registration form at this link: http://biology.fau.edu/pdf/MS_DIS_Thesis_Internship_Registration_Form_2015.pdf
- **Thesis Proposal** completed and approved by your advisor and then submitted to the committee members

Semester III

- Register for **Master's Thesis Proposal seminar (BSC 6905)** (1 cr). Use Registration form at this link: http://biology.fau.edu/pdf/MS_DIS_Thesis_Internship_Registration_Form_2015.pdf
- Present your **Thesis Proposal** to the department and get the written proposal approved by the committee. Three weeks prior, written notice is required (Reserve room and post flyer) (Please see Biology website for Thesis Proposal form: <http://biology.fau.edu/formsandpolicies/index.php> ; must be completed, signed by advisor and turned into Biology Dept. SC 136). For Rubric forms contact Biology Office
- Take courses that will help fulfill course requirements (see Specific requirements for MS Thesis option)
- Submit **"Revised" Plan of Study**, if necessary (Please visit Graduate College website for instructions: <http://www.fau.edu/graduate/forms-and-procedures/index.php>)
- Highly recommended to sign up for a **Thesis Formatting Workshop**: <http://www.fau.edu/graduate/forms-and-procedures/degree-completion/thesis-and-dissertation/formatting.php>

Semester IV

- **Apply for graduation** early in term (see specific deadline date published in Schedule of Courses) <http://www.fau.edu/graduate/forms-and-procedures/student-deadlines.php>
- Register for **Master's Thesis Defense seminar (BSC 6905)** (1 cr) (Registration form link) <http://biology.fau.edu/formsandpolicies/index.php>
- **Finish writing your thesis** (after it has been approved by your advisor, distribute to your committee members at least 3 weeks before your scheduled thesis results seminar)
- **Present your thesis results to the department** (all faculty and students invited) and **Defend Thesis**. Three weeks prior, written notice is required (reserve room and post flyer). Complete **Thesis Defense form** <http://biology.fau.edu/formsandpolicies/index.php> . For Rubric forms contact Biology Office
- **Submit your thesis** to the Graduate College (see deadline date; Don't miss it!) <http://www.fau.edu/graduate/forms-and-procedures/student-deadlines.php>

Master of Science/Non-Thesis (36 Credits) and M.S.T./Master in Teaching (30-36 Credits)

Semester I

- Consult advisor and take courses that will help fulfill course requirements (see Specific requirements for Non-Thesis and MST options)
- **Choose committee members** in consultation with advisor (see Advisor & Graduate Supervisory),
- **Review Comprehensive Examinations requirements**; select 3 areas within one specialty group; committee members chosen should be based on the specialty areas selected for the Comprehensive Examinations (see section III-D)
- Complete **Plan of Study** (must submit by end of 1st semester). Visit Graduate College website for online form and instructions: <http://www.fau.edu/graduate/forms-and-procedures/index.php>

Semester II

- Take courses that will help fulfill course requirements (see Specific requirements for Non-Thesis and MST options)
- Complete **MS Supervisory Committee Membership Form**: <http://biology.fau.edu/formsandpolicies/index.php>
- **For MST students**, begin making arrangements for the **Education Internship**

Semester III

- Take courses that will help fulfill course requirements (see Specific requirements for Non-Thesis and MST options)
- Submit **"Revised" Plan of Study**, if necessary (Please visit Graduate College website for instructions: <http://www.fau.edu/graduate/forms-and-procedures/index.php>)
- **Contact committee members to schedule Comprehensive Examinations** (see deadlines for each term) **which should be taken in the 4th semester** (see section D. Comprehensive Examinations: Written Comprehensive Examination Format for format requirements and to schedule dates for exams). <http://biology.fau.edu/formsandpolicies/index.php>
- **Send (via email) Comprehensive Exam schedule to Biology Office for review and approval**

Semester IV

- **Apply for graduation** early in term (see specific deadline date published in Schedule of Courses) <http://www.fau.edu/graduate/forms-and-procedures/student-deadlines.php>
- **Take Comprehensive Examinations and complete Comprehensive Examination Form** (on Biology Website: <http://biology.fau.edu/formsandpolicies/index.php>)
- Complete course work

Professional Science Master (PSM) in the Business of Biotechnology
(34 Credits, including 2 Internships)

Semester I

- Consult advisor (Dr. Binninger) and take courses that will help fulfill course requirements (see Specific requirements for PSM-BB option)
- Complete **Plan of Study** (must submit by end of 1st semester). Visit Graduate College website for online form and instructions: <http://www.fau.edu/graduate/forms-and-procedures/index.php>

Semester II

- Take courses that will help fulfill course requirements (see Specific requirements for PSM-BB option)
- Consult with Advisor (Dr. Binninger) to **set up Internships**
- **Send CV/Resume** to Advisor (Dr. Binninger)

Semester III

- Take courses that will help fulfill course requirements (see Specific requirements for PSM-BB)
- **Take Business or Science Internship** (2 credits) (Biology Office has registration from)
- Have Supervisor of Internship send letter of review at end of internship
- Submit "**Revised**" **Plan of Study**, if necessary (Please visit Graduate College website for instructions: <http://www.fau.edu/graduate/forms-and-procedures/index.php>)

Semester IV

- Take courses that will help fulfill course requirements (see Specific requirements for PSM-BB)
- **Take Business or Science Internship** (2 credits) (Biology Office has registration from)
- **Have Supervisor of Internship send letter of review at end of internship**
- **Apply for graduation** early in term (see specific deadline date published in Schedule of Courses) <http://www.fau.edu/graduate/forms-and-procedures/student-deadlines.php>