

 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Graduate Programs	UGPC Approval _____ UFS Approval _____ Banner Posted _____ Catalog _____
	Department Biological Science College Charles E Schmidt College of Science	
Program Name Masters in Science and Masters of Science in Teaching	<input type="checkbox"/> New Program <input checked="" type="checkbox"/> Change Program	Effective Date (TERM & YEAR) Spring 2020
Please explain the requested change(s) and offer rationale below or on an attachment Changes to the catalog are needed to update degree information and clarifications to make more clear the requirements for the degrees. Add missing information and new course and degree requirements. Changes and updates listed below. Update catalog with current admission application requirements and application deadlines. Add brief descriptions for each degree offered Add Proposal and Defense prefix for required courses for MS Degree Non-Thesis Option 1 and Non-Thesis Option 2 : Add the new Masters Comprehensive Exam (BSC 6962)course requirement. The new course enforces the requirement that has been in place for over 30 years for taking the three written comprehensive exams and student can now get credit and it will be on their transcript as S/U grade once they have passed all three written exams		
Faculty Contact/Email/Phone Randy Brooks/wbrooks@fau.edu/561-297-3688	Consult and list departments that may be affected by the change(s) and attach documentation	
Approved by Department Chair <u>Sarah I. Millon</u> College Curriculum Chair <u>Christopher Beecher</u> 2020.02.10 09:32:23 -05'00' College Dean <u>Walt D. Kofas</u> UGPC Chair <u>Paul Penarth</u> UGC Chair <u>Pat R. [Signature]</u> Graduate College Dean <u>[Signature]</u> UFS President _____ Provost _____		Date <u>10-23-19</u> <u>2/10/2020</u> <u>2/26/20</u> <u>2/26/2020</u> <u>3-2-2020</u>

Email this form and attachments to UGPC@fau.edu one week before the UGPC meeting so that materials may be viewed on the UGPC website prior to the meeting.

FAUprogramchangeGR, created December 2017

GRADUATE COLLEGE

FEB 10 2020

MASTER'S PROGRAMS

Master of Science or Master of Science in Teaching

Application Deadlines: Spring term- October 1st, Fall term- January 15th.

Departmental Admission Requirements

In addition to meeting all of the University and College admission requirements for graduate study, each applicant for the Master of Science or Master of Science in Teaching degree must:

1. Have scores of at least 151 (verbal) and 148 (quantitative) on the Graduate Record Examination. GRE scores more than five years old will not be accepted;
2. Have a minimum 3.0 average for the last 60 credits of undergraduate work;
3. **Letters of Recommendation: 3 are required (preferred letters by previous professors)**
4. **Statement of Goals and Interests**
5. *** Graduate Student Biology Faculty Advisor Verification form**
6. **Obtain Approval of the Department of Biology Sciences.**

*** For Biology Faculty Advisor selection suggestions, students should go to the Biology departmental webpages to examine the fields and interests of individual faculty members. Once students find a Biology Faculty member in their field of interest, they should contact the faculty member directly.**

Degree Requirements

There are three degree programs available: thesis option, non-thesis option 1 and non-thesis option 2. Specific requirements for each degree are described below.

Master of Science with Major in Biological Sciences (Thesis Option) **(Changes below effective fall 2019.)**

~~This M.S. degree requires a minimum of 36 total credits (at least half or 18 (of which 20 credits must be Biology Department courses); 12 credits of coursework at the 6000 level (exclusive of any research credits), 6 credits of Master's Thesis (BSC 6971) and 2 credits of seminar. Required seminar courses include the Master's Proposal Seminar (BSC 6963) and the Master's Defense Seminar (BSC 6975). One seminar credit is given for presenting a thesis proposal, which should be given in the fall or spring of the first year. Another seminar credit is given for presenting a thesis results seminar, which should be given in the fall or spring of the second year. No further graduate 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 committee can sign off on the thesis. All seminars and theses defenses must be announced via poster and email at least one week in advance. Effort should be made to schedule seminars to maximize attendance, all students and faculty are encouraged to attend.~~

~~Of the remaining 16 credits required for the degree, no more than 6 master's thesis credits will be counted (in addition to the thesis credits listed above). Remaining credits must be completed in courses at the 5000-6000 level.~~

~~Before a thesis topic is approved by the thesis committee, a student may explore the feasibility of a thesis project. Students doing such exploratory research can receive up to 3 credits in Directed Independent Study (BSC 6905) and up to 3 credits in Master's Thesis (BSC 6971). Thereafter, no more research credits can be taken until the research topic has been approved by the student's thesis committee. No more than 3 credits in DIS may be counted toward this degree. To be considered on schedule, the research topic should be approved by the thesis committee before the end of the student's second semester of graduate study. Students must complete comprehensive exams.~~

GRADUATE COLLEGE

FEB 10 2020

Master of Science with Major in Biological Sciences (Thesis Option) is designed for students whose career goals include a research emphasis. This 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

This M.S. degree requires a minimum of 36 total credits; **Student Curriculum Degree** requirements include

- 1) At least half or 18 credits must be Biology Department courses.
- 2) 12 credits of graded coursework at the 6000 level (exclusive of any research credits),
- 3) Students doing exploratory research can take up to 3 credits in Master's Thesis (BSC 6971) or DIS credits BSC 6905 before their proposal. Thereafter, no more research credits can be taken until the research topic has been approved by the student's thesis committee.
Note: No more than 3 credits of DIS can count toward the degree

- 4) * Master's Thesis Proposal Seminar BSC 6963 (1 credit maximum)
- 5) ** Master's Thesis Defense Seminar BSC 6975 (1 credit maximum)
- 6) Minimum of 6 credits of BSC 6971 Master's Thesis credits is required.

Note: No more than 12 credits of Master's Thesis credits can count toward the degree

- 7) Maximum of 3 credits of Direct Independent Study (BSC 6905) will count toward degree
- 8) Remaining courses must be at 5000 or 6000 level.
9. Attend a Graduate College Thesis Workshop

* For Master's Thesis Proposal Seminar requirements see Biology Regulations and Procedures

** For Master's Thesis Defense requirement see Biology Regulations and Procedures and the Graduate College for current University thesis requirements.

Master of Science with Major in Biological Sciences (Non-Thesis Option 1)
(Changes below effective fall 2019.)

Master of Science with Major in Biological Sciences (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.

This M.S. degree requires a minimum of 36 credits. Additional requirements include:

1. At least half or 18 must be Biology Department courses
2. Eighteen (18) of the 36 credits must be at the 6000 level or higher; the remaining 18 credits must be at the 5000 or 6000 level.

3. Two (2) of the 36 credits must involve courses in which the student presented a formal seminar.
4. Up to 3 credits of Directed Independent Study (BSC 6905) may be counted toward this degree.
- ~~5. Students must complete and pass the 1 credit Master's Comprehensive Exam course (BSC 6962). Comprehensive exams administered by each of their committee members.~~
5. One (1) of the 36 credits must be the "Master's Comprehensive Exam (BSC 6962)"
 - Students must take and pass a minimum of three (3) written comprehensive exams given by committee on designated areas within the microbiology and organismal specialties. Question types will require written responses, of essay and definition format. (see FAU Regulations for Biology Masters Degrees for complete requirements for completing the Masters Comprehensive Exam)

NOTE: Master's Thesis BSC 6971 ; Master's Thesis Proposal BSC 6963 and Master's Thesis Defense BSC 6975 credits do not count toward Non-Thesis Option 1 degree

Integrative Biology PH.D. students choosing Biology for a Master's Along the Way degree will be verified for completion of degree requirements by the Biology Department during the Graduation Audit Check. Consult with the IB Ph.D. advisor early in matriculation to ensure the curriculum followed would satisfy the requirements for the M.S./Non-Thesis Option 1.

~~Master of Science in Teaching with Major in Biological Sciences (Non-Thesis Option 2)~~

~~Master of Science in Teaching with Major in Biological Sciences (Non-Thesis Option 2) 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.~~

The M.S.T. degree requires a minimum of 30 credits, if the student has two years of teaching experience at a secondary or junior college level. The M.S.T. degree requires 36 credits if the student has not completed the student teaching requirement. Additional requirements include:

Student Curriculum degree requirements include:

1. At least half or 15 must be Biology Department courses.
2. Fifteen (15) of the 30 credits must be at the 6000 level or higher; the remaining 15 credits must be at the 5000 or 6000 level.
3. Two (2) of the 30 credits must involve courses in which the student presented a formal seminar.
4. Up to 3 credits of Directed Independent Study (BSC 6905) may be counted toward this degree.
- ~~5. Students must complete and pass comprehensive exams administered by each of their committee members.~~

GRADUATE COLLEGE

FEB 10 2020

5. One (1) of the 30 credits (or 36 credits for students without two years prior teaching experience) must be the * Master's Comprehensive Exam (BSC 6962)
- Students must take and pass a minimum of three (3) written comprehensive exams given by committee on designated areas within the microbiology and organismal specialties. Question types will require written responses, essay and definition format. (see FAU Regulations for Biology Masters Degrees for complete requirements for completing the Masters Comprehensive Exam)
6. Students must take 6 credits of approved graduate courses in education or another cognate field if they plan to teach in high school and hold a Rank III secondary certificate (obtained independently from this M.S.T. degree), or if the student intends to teach at the college level.
7. Six (6) additional credits of 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 in the following manner. Students enrolled in EDG 6940 (6 credits) may choose one of the following to fulfill the course requirements.
- 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 the student independently lines up an internship opportunity. Once confirmed, the Biology Department will contact the FAU Education Department requesting permission for the student to register for the Internship, EDG 6940. At the end of the term in which the student registers for the internship, the FAU Education Department will contact the Biology Department to verify the student has completed the internship successfully so that a satisfactory grade can be applied. This latter confirmation is done based on the teacher/school in which the student does the internship and who verifies in writing that the internship was completed.
 - b. Teach a laboratory course in the Biology Department (verified by the lab coordinator for time, effort and teaching responsibilities).

NOTE: Master's Thesis BSC 6971 : Master's Thesis Proposal BSC 6963 and Master's Thesis Defense BSC 6975 credits do not count toward Non-Thesis Option 2 (MST) degree