

**BIOLOGY
&
FISHERIES AND MARICULTURE
MASTER'S STUDENT HANDBOOK
2016-2017**



**TEXAS A&M UNIVERSITY
CORPUS CHRISTI**

COLLEGE OF SCIENCE AND ENGINEERING

**6300 Ocean Drive
Corpus Christi, TX 78412
Phone (361) 825-2754
Websites**

**BIOL: <http://www.biol.tamucc.edu/ms/> and
<http://gradschool.tamucc.edu/degrees/science/biology.html>**

**FAMA: <http://fama.tamucc.edu> and
http://gradschool.tamucc.edu/degrees/science/fisheries_and_mariculture.html**

*This handbook is intended to be read in conjunction with the Graduate Catalog:
<http://catalog.tamucc.edu/index.php> and the College of Graduate Studies Master's Student Handbook
<http://gradschool.tamucc.edu/>*

This page intentionally left blank.

Section I. Biology and Fisheries & Mariculture Programs.....	4
Introduction.....	4
The M.S. in Biology.....	4
The M.S. in Fisheries and Mariculture	4
The BIOL or FAMA Student.....	5
Biology and Fisheries & Mariculture Administrative Staff.....	5
Get Connected.....	5
Section II. Admission Information	6
BIOL and FAMA Program Admissions Criteria.....	6
Application Submission.....	6
Program Requirements & Information	6
Program Deadlines.....	7
Assistantships.....	8
Teaching Assistantships.....	8
Research Assistantships	8
Graduate Orientation.....	8
Section III. Academic Progression	9
Enrollment Status.....	9
Choosing a Degree Track.....	9
FAMA Professional Track.....	9
Fulfilling BIOL and FAMA Program Degree Requirements	9
The Graduate Advisory Committee (GAC).....	10
Degree Plan.....	11
BIOL M.S. – Thesis Track Requirements	12
BIOL M.S. – Professional (non-thesis) Track Requirements	12
FAMA M.S. Thesis Track Requirements	13
FAMA Professional (non-thesis) Track Requirements.....	14
Deadlines.....	16
Thesis/Professional Paper and Oral Examination Deadlines.....	16
Graduation Deadlines.....	16
Interactions With Other Graduate Students	16

SECTION I. BIOLOGY AND FISHERIES & MARICULTURE PROGRAMS

Introduction

This handbook provides guidance to students applying for and enrolled in either the Biology (BIOL) master's degree (M.S.) program or the Fisheries and Mariculture (FAMA) master's (M.S.) degree program at Texas A&M University-Corpus Christi (TAMUCC). It contains information about the requirements for successfully completing the degree, the course of study, selecting an advisor and graduate committee, choosing whether to pursue the thesis or professional (non-thesis) course of study, and the final oral examination. This handbook should be used in conjunction with the [Graduate Catalog](#) (be sure to select correct catalog in menu). The BIOL & FAMA Handbook lists requirements specific to the BIOL and FAMA programs that are above and beyond what is described in the catalog. Additional graduate school requirements and specific rules and procedures can be found in the [College of Graduate Studies \(CGS\) Master's Student Handbook](#) and the [TAMU-CC University Handbook](#). The appendix contains detailed instructions for preparing the thesis or non-thesis/professional paper.

The M.S. in Biology

The Master of Science in Biology is designed for graduate students who wish to become knowledgeable leaders and professionals in fields of study that range from organismal biology and ecology to the biomedical sciences. The M.S. in Biology is a very flexible program that allows the course of study to be tailored to the student's interests and career goals.

The **goal** of the M.S. in Biology is:

- To provide graduates with a broad understanding of the biological sciences as well as education, training, and skills in a specific discipline.
- To foster creative independence and critical thinking in graduates so they are competent to practice in and contribute to a variety of professions and fields of scholarship.

The **expectations** of our students are to:

- Gain expertise in specific biological field including knowledge of the relevant scientific literature related to their thesis or professional paper.
- Understand the scientific method and be able to design and conduct experiments.
- Be able to accurately describe (orally and in writing) biological research.

The M.S. in Fisheries and Mariculture

The Fisheries and Mariculture Program offers an M.S. degree with a choice of emphasis in either fisheries or mariculture. Faculty members supervise student research on topics ranging from fisheries ecology to habitat restoration and aquatic animal nutrition. Researchers use an array of quantitative research tools ranging from statistical analyses to molecular techniques to GIS. Our students learn the skills necessary for positions in both the public and private sectors of the fisheries and mariculture industries, particularly through the internship-intensive professional track option, and through a rigorous core curriculum combined with an intensive hands-on research or professional project.

The **goal** of the Fisheries and Mariculture M.S. program is to:

- Prepare graduate students for a career in either the private or public sector in fisheries, mariculture, or aquaculture.

The **expectations** of our graduates are to:

- Exhibit knowledge (breadth and depth) in the fields of fisheries or mariculture.
- Demonstrate the ability to conduct a thorough and complete survey of the relevant scientific literature pertaining to their approved topic of study.
- Demonstrate the ability to collect, organize and interpret data and produce a thesis or professional paper from an experiment, study, or project.
- Develop technical writing and communication skills that will benefit them in their professional careers.

The BIOL or FAMA Student

Prospective students who wish to pursue a BIOL or FAMA M.S. degree should have strong life sciences backgrounds. Students accepted into the degree program will generally have undergraduate degrees in an area of the biological sciences (e.g., Biology, Ecology, Wildlife and Fisheries Sciences) with coursework that includes chemistry (e.g., general chemistry, organic chemistry, biochemistry). The BIOL and FAMA faculty welcome students from diverse academic paths as well as those who have some research experience.

Graduate study provides advanced, specialized training that strengthens academic and professional competence by broadening scientific horizons as well as development of specific expertise. Graduate students must assume greater responsibility and exercise more individual initiative than was necessary as an undergraduate. The graduate faculty emphasize productive research, employ seminar methods more frequently, and anticipate higher levels of class participation. To be successful in the master's program, students must display commitment to independent study, must become familiar with past and current research, and must relate ongoing research to the investigations of other scholars.

Biology and Fisheries & Mariculture Administrative Staff

Department Chair: C. Edward Proffitt, Ph.D.

BIOL Program Coordinator: Kim Withers, Ph.D.

FAMA Program Coordinator: John Scarpa, Ph.D.

Administrative Staff: Ms. Ronnie Emanuel (Academic Advisor), Mr. Ken Brown, Ms. Geri Fernandez

Get Connected

Most official college and program information for students is distributed on listservs. A full list of all university listservs may be found at www.sci.tamucc.edu/students/listserves.html. It is highly recommended that you subscribe to the graduate science and engineering student listserv (SciTech-GradStudents, scitech-gradstudents@listserv.tamucc.edu, Historical fact: It is called SciTech as the college used to be Science and Technology.) Other listservs that may be of interest include: MSGSO - Marine Science Graduate Student Organization (marigrad-list@sci.tamucc.edu) and Opportunities (scholarship/internship, opportunities-list@listserv.tamucc.edu).

SECTION II. ADMISSION INFORMATION

BIOL and FAMA Program Admissions Criteria

Students seeking admission to a graduate degree program with Texas A&M University-Corpus Christi must submit an admission application form, application fee, official transcripts, and program-specific supporting documents. All documents **must** be received by the College of Graduate Studies by the designated deadlines (see below).

College of Graduate Studies
6300 Ocean Dr., Unit 5843
Faculty Center, Suite 178
Corpus Christi, TX 78412

gradweb@tamucc.edu

Phone: 361.825.2177

Fax: 361.825.2775

Application Submission

Specific information on University criteria, application procedures, fees, and additional requirements for international applications are found in the [TAMUCC Graduate Catalog](#) and at the [College of Graduate Studies Website](#). To apply, complete the online Graduate Studies Application Form found at: http://gradschool.tamucc.edu/new_students/application_process.html

Program Requirements & Information

Below is a summary of the supporting documents required by the BIOL and FAMA program:

- Completed university graduate application form.
- An essay of about 1000 words describing educational and career goals, interests as they relate to the faculty in the BIOL or FAMA programs, and a list of faculty members contacted.
- Three letters of evaluation from people familiar with your scholarly potential.
- Transcripts of all previous undergraduate and graduate work (including transcript evaluations of all work done at foreign institutions)*.
- Graduate Record Examination (GRE) scores that are not more than five (5) years old.
- Any relevant supplemental materials such as publications or resumes that include information about relevant experiences.
- International students have additional requirements as outlined at the College of Graduate Studies [website](#). The BIOL and FAMA programs require TOEFL or IELTS scores ([click here for more information](#)) for students from countries where English is not the native language. These scores must not be more than two (2) years old from the date the application was received AND must meet university criteria.

*To be considered official, all required postsecondary academic records must be submitted directly from the registrar's office and bear the seal and signature of the registrar of the institution. In some foreign countries, the controller of examinations or principal may certify academic records. Official English translations, not interpretations, are required from most countries.

This handbook is intended to be read in conjunction with the Graduate Catalog:
<http://catalog.tamucc.edu/index.php> and the College of Graduate Studies Master's Student Handbook
<http://gradschool.tamucc.edu/>

It is the student's responsibility to make sure that the application is complete and received by the deadline to assure full consideration. Acceptance into the BIOL or FAMA M.S. programs is competitive and based on consideration of all application materials. Students accepted into the program will typically have demonstrated an ability to succeed in an academically rigorous environment through high GPA and GRE scores. Relevant life experiences may also provide a substantial basis for consideration.

Students whose GPA for the last 60 hours of undergraduate coursework is less than 3.0 (4.0 scale), whose GRE scores are below the 50th percentile, or both are typically not competitive. Even if accepted, students in this situation are not eligible for support (i.e., cannot be supported through teaching or research assistantships), including out-of-state tuition waiver. Students whose GPA for the last 60 hours of undergraduate coursework is 2.5 or less (4.0 scale) will not be considered for admission.

A campus visit with personal interviews involving prospective faculty mentors is highly recommended. To schedule a visit, please contact one of the following:

Dr. Kim Withers
BIOL Program Coordinator
Kim.Withers@tamucc.edu
361.825.5907

Dr. John Scarpa
FAMA Program Coordinator
John.Scarpa@tamucc.edu
361.825.2369

Mr. Ken Brown
Sr. Administrative Assistant
Kenneth.Brown@tamucc.edu
361.825.3907

Program Deadlines

The BIOL and FAMA programs have two deadlines: 1) priority date deadlines and 2) late or last decision date deadlines. All students should strive to meet the priority deadline because it is used to make decisions regarding assignment of assistantships. All applications received after the priority date deadline are considered "late" applications. Deadlines are typically earlier for international students because of the time required to process visa applications for international students.

BIOL and FAMA APPLICATION DEADLINES			
	Admission Semester		
Priority Applications (Domestic/International Students)	Fall	Spring	Summer I
Priority deadline to receive complete applications.	February 1	August 1 / June 1	February 1
Decision date for Priority deadline.	March 15	September 15	March 15
Late Applications (International Students)	Fall	Spring	Summer I
Last date to receive complete applications.	April 15	September 15	February 1
Decision date for late applications.	May 15	October 15	March 1
Late Applications (Domestic Students)	Fall	Spring	Summer I
Last date for receipt of complete applications.	May 15	October 15	March 1
Decision date for late applications.	June 15	November 15	April 1

The acceptance process has two steps: 1) review and vote for acceptance by the BIOL and FAMA admissions committee, and 2) final and official acceptance by the College of Graduate Studies. The applicant will be notified of acceptance by the BIOL or FAMA Program Coordinator by email at the same time the College of Graduate Studies is notified. **The student will receive official acceptance or rejection only by the College of Graduate Studies.**

7

This handbook is intended to be read in conjunction with the Graduate Catalog:
<http://catalog.tamucc.edu/index.php> and the College of Graduate Studies Master's Student Handbook
<http://gradschool.tamucc.edu/>

Assistantships

Students seeking full consideration for fellowships or assistantships (teaching or research) should have a completed application file submitted by the Priority Deadline (e.g., February 1 for Fall admission). However, applicants must apply separately for scholarships, assistantships, and fellowships at the College of Science & Engineering (<http://www.sci.tamucc.edu/students/gradfunding.html>). Remuneration for M.S. assistantships, which is currently set at \$1200/month for 9-month half-time (50%, 20 hours/week) appointments, are consistent regardless of whether a student is a teaching or research assistant. **Students are only eligible to work half-time.**

After the priority deadline, if funding is available, awards will be made on a first come, first served basis. Students who have received offers for fellowships or assistantships must notify their respective coordinator (BIOL - Kim Withers; FAMA - John Scarpa) and the College of Science and Engineering TA Coordinator (Named in offer letter) of their acceptance by April 15 for Fall admission and November 15 for Spring admission (if assistantships are available). Otherwise, the University will assume that the offer has been rejected and will make offers to other deserving students.

Admission to the program is decided independently of financial awards. Students must first be accepted into the program before financial awards can be considered. For details regarding graduate assistantships and scholarships, refer to the CGS Graduate Assistantship Handbook at <http://gradschool.tamucc.edu/funding/assistantships.html> and <http://gradschool.tamucc.edu/funding/index.html>, respectively.

Teaching Assistantships: The State of Texas requires international graduate students whose native language is not English to obtain English proficiency certification before serving as graduate teaching assistants. See CGS Graduate Assistantship Handbook for details at <http://gradschool.tamucc.edu/funding/assistantships.html>.

Research Assistantships: A limited number of research assistantships are available through research institutes or centers and individual faculty members. Consult with institute or center directors and individual faculty members to identify these opportunities.

Timelines: Sometimes students need to make decisions on financial assistance before all information is in. For example, a student may need to accept or reject a financial aid package (loans) before he or she knows whether he or she is approved for an out-of-state tuition waiver. If you have a financial aid situation, you should discuss the situation with your faculty advisor and the Financial Aid Office before making a decision. If your studies start being extended far beyond “normal” time for completion, a situation of “excessive” hours may occur that can lead to financial aid issues. This situation rarely occurs, but if it does, see a representative at the Financial Aid Office to check what is the process for continuing.

Graduate Orientation

The College of Graduate Studies hosts a general Graduate Student Orientation ([Orientation Schedule](#)) every Fall and Spring semester. The BIOL and FAMA programs schedule a Program Requirements Orientation separately, usually during the first week of classes to ensure that all new graduate students in the program are able to attend. **Graduate students with teaching assistantships must attend training prior to the start of the fall and spring semester.**

This handbook is intended to be read in conjunction with the Graduate Catalog:
<http://catalog.tamucc.edu/index.php> and the College of Graduate Studies Master's Student Handbook
<http://gradschool.tamucc.edu/>

SECTION III. ACADEMIC PROGRESSION

Enrollment Status

All BIOL and FAMA students with teaching or research assistantships **MUST** be enrolled full-time, which is 9 hours during the fall and spring semesters and 3 hours during the combined summer session. To maintain activity in either program, students must enroll for at least 1 credit hour each Fall and Spring semester. The maximum time allowed to complete the M.S. degree is seven (7) years. After this time coursework will begin to expire. Students typically, and should plan to, complete their degree within 2-3 years.

All BIOL and FAMA students must follow University rules governing graduate studies including, but not limited to: residency, recency of credit, leave, transfer credit, degree plans, grade point average, scholastic probation, enforced withdrawal, out-of-State tuition waivers, and the Texas 99-hour rule. All of these rules are described in the [TAMUCC Graduate Catalog](#).

Choosing a Degree Track

Both BIOL and FAMA programs give students a choice between the thesis track and the professional (non-thesis) track. The **thesis track** can be thought of as a *research intensive degree* while the **professional track** encompasses a continuum of plans that range from *internship intensive* (currently only available to FAMA students, see details below) to a program that is *coursework intensive with a research component*. Students should have discussed which track they will pursue with their graduate advisor before being accepted into the program.

FAMA Professional Track

The FAMA Professional Track Master's Degree is designed to provide a broad understanding of fisheries or mariculture and is focused upon practical, hands-on experience in fisheries or mariculture techniques. The ultimate goal of this option is to provide students with the skills and techniques needed to improve their opportunity for employment within industry. Students are required to undertake an extensive internship program with an approved agency, institution, or commercial operation. FAMA Professional Track requirements differ substantially from those of the FAMA Thesis Track and are discussed in the next section.

Fulfilling BIOL and FAMA Program Degree Requirements

Regardless of program and track (thesis vs professional), all BIOL and FAMA master's students must:

- form a committee appropriate to program and track
- have an approved degree plan
- develop a prospectus outlining the goals and objectives of their research project or internship
- pass a final oral examination.

In addition, thesis-track students must:

- develop a research proposal

This handbook is intended to be read in conjunction with the Graduate Catalog:
<http://catalog.tamucc.edu/index.php> and the College of Graduate Studies Master's Student Handbook
<http://gradschool.tamucc.edu/>

- conduct research
- write thesis
- give a public seminar
- defend thesis

Important – It is the student’s responsibility to ensure all forms, paperwork, and other degree requirements are completed in a timely manner. Continuing stipend support is contingent upon completing these milestones.

The Graduate Advisory Committee (GAC)

After being accepted into the BIOL or FAMA program and enrolling, the most important first step for thesis-track and some (mostly BIOL) professional-track students is forming the graduate advisory committee (GAC). All first semester BIOL or FAMA students will be assigned a College of Science and Engineering Advisor for guidance with class registration and other program issues. This advisor is not to be confused with your GAC supervisor. Ideally, students should select a GAC, with the aid of their primary supervisor(s), by the end of their first semester. The committee may be formed no later than the end of their second semester in the program. The GAC will help the student develop their overall degree program, including determining a research topic, formulating a research plan, selecting coursework, approving the degree plan, reviewing and approving the final research product (thesis or professional paper), and administering any examinations. Beyond these functions, the chair and advisory committee members should serve as valuable mentors.

Composition and size of the GAC should reflect the scope of the intended graduate program and should be developed with substantial input from the student's primary advisor(s). After the committee is formed, your primary advisor will normally become your committee chair. Individual faculty members are under no obligation to serve on your committee or to be your committee chair. The decision not to serve is usually based on some definable criteria, such as work overload or incompatible research interests.

The graduate advisory committee consists of at least three (3) members. Two members must be of the BIOL or FAMA M.S. faculty, including the committee chair. Additional members from outside the BIOL or FAMA M.S. faculty or the university may be approved by Life Sciences Department and the College of Graduate Studies (CGS). In exceptional cases, individuals holding graduate faculty rank at TAMU-CC or another accredited institution may serve as co-chair with the unanimous approval of the BIOL or FAMA M.S. faculty on the committee. In all cases involving the appointment of a non-BIOL or FAMA faculty member, a graduate faculty status request accompanied by a curriculum vitae and a rationale for the appointment must be filed with the Life Sciences Department and CGS and provided to the respective Program Coordinator.

Students **MUST** meet with their committee ***by the end of the first long semester but no later than the end of the second long semester***. The goal of the first committee meeting is to allow students to introduce themselves and their academic and research interests to the committee and to finalize a degree plan. Students should remain in close contact with their GAC during all phases of graduate study to keep them informed of progress and setbacks. Students must meet at least annually with their GAC to update the committee regardless of progress. **Students are responsible** for calling required annual meetings of the committee and any other meetings deemed necessary by either the student or a committee member. If a student is having problems with their GAC they should speak to their respective Program Coordinator. If an advisor or committee chair decides to not serve on a student’s GAC it is the responsibility of the

student to find a replacement for that member or to find a new chair, otherwise the student may be dropped entirely from the university.

On occasions it may be necessary to replace a committee member or a committee chair. If such a situation arises, the student should consult their committee chair or the BIOL or FAMA program coordinator immediately. The Program Coordinator and the other members of the committee will determine if a change is necessary. The removal or replacement of a committee member requires a majority agreement of the remaining committee members and the Program Coordinator. Should a dispute arise between a student and any committee member, the student should consult with their committee chair, BIOL or FAMA program coordinator, or the Department Chair.

Degree Plan

Each student, with input from the GAC or faculty supervisor, formulates a degree plan, which details the coursework that the student will undertake for his/her degree program. The minimum number of hours that are taken by all M.S. students is 36 credit-hours at the 5000- or 6000-level; however, many students will take more than the minimum, either because they wish to expand their knowledge, or because their committee requires additional coursework to address deficiencies. To address deficiencies, the GAC may require a student to take coursework at the 4000-level or less; these courses are regarded as foundation work and will not be counted toward the total. Up to nine (9) credit-hours of graduate-level coursework may be approved for transfer from another university or program.

A degree plan must be filed with the Academic Advisor for Life Sciences (Ms. Ronnie Emanuel) no later than the end of the second long-semester after the student begins his/her program. The requirements for tracks and options are listed below.

Thesis and Professional Paper Research Prospectus and Proposal

See the separate on-line BIOL and FAMA [Style Guide](#) regarding research prospectus and proposal.

NOTE: For projects involving research with vertebrate animals (e.g., fish), an Institutional Animal Care and Use Committee (IACUC) protocol must be submitted to the [Research Compliance Office](#). The protocol must be approved by IACUC **BEFORE** any data is collected that will be used in your thesis. For projects involving human subjects (even surveys), an Institutional Review Board (IRB) protocol must be submitted to the [Research Compliance Office](#). The protocol must be approved by IRB **BEFORE** any data is collected that will be used in your thesis.

Students should prepare protocol and other compliance forms along with their graduate advisor(s).

It is in the best interests of the student to ensure the proposal is approved by the committee AND compliance office prior to the start of the research. The student should report regularly on research progress to the advisor and committee to prevent last minute surprises or misunderstandings and to gain approval of any redirection.

BIOL M.S. – Thesis Track Requirements

The BIOL thesis degree program requires students to propose an original research project, conduct the proposed research, and then prepare a thesis manuscript based on that research (see the on-line BIOL and FAMA [Style Guide](#) for more information about the preparation of the documents required to fulfill Thesis Track Requirements). The proposed research must be approved by the GAC and conducted while the student is enrolled at TAMUCC. The thesis must include review of the relevant literature, a description and statistical analysis of research results, and a discussion of the results that contextualizes the research within the larger body of research in the discipline. A minimum of 36 hours are required, which can include up to 4 hours of BIOL 5940 Project Research with approval of the GAC. In addition to the required credit hours associated with the research project, there are other required and elective courses that must be taken.

Course Number	Course Title	Credit Hours	Total Credit Hours
MATH 6315	Statistical Methods in Research	3	3
BIOL 5392	Thesis Proposal (proposal must be approved by GAC to receive credit)	3	3
BIOL 5393	Thesis Research (first draft of the thesis must be produced to receive credit)	3	3
BIOL 5394	Thesis Submission (final thesis manuscript must be approved by the GAC to receive credit)	3	3
BIOL 5102	Graduate Defense Seminar (taken in the last semester)	1	1
	Elective, specialized, topical coursework approved by the GAC		23*
		Total	36*

*minimum number of credit hours required

BIOL M.S. – Professional (non-thesis) Track Requirements

The BIOL professional track MS degree is designed to provide a broad understanding of biology and will especially benefit those who are already employed and are seeking advancement or additional training to enhance their knowledge and skills. This degree is heavily weighted toward additional coursework rather than research and consists of required and elective coursework, and a research project approved by the GAC that can typically be completed in one long semester. The professional paper produced must demonstrate the student's knowledge of the relevant background literature, their ability to collect, organize and analyze data, and their ability to contextualize their data with the broader body of work within the discipline (see the on-line BIOL and FAMA [Style Guide](#) for more information about the preparation of the documents required to fulfill Professional Track Requirements). A minimum of 36 credit hours are required for graduation. BIOL 5940 Project Research hours will **NOT** be counted toward the degree.

Course Number	Course Title	Credit Hours	Total Credit Hours
MATH 6315	Statistical Methods in Research	3	3
BIOL 5397	Directed Research (taken the semester when the Professional Paper will be completed, usually the last)	3	3
BIOL 5102	Graduate Defense Seminar (taken in the last semester)	1	1
	Elective, specialized, topical coursework approved by the GAC		29*
		Total	36*

*minimum number of credit hours required.

FAMA M.S. Thesis Track Requirements

The FAMA thesis degree program requires students to propose an original research project, conduct the proposed research, and then prepare a thesis manuscript based on that research. The proposed research must be approved by the GAC and conducted while the student is enrolled at TAMUCC. The thesis must include a review of the relevant literature, description and statistical analysis of research results, and discussion of the results that contextualizes the research within the larger body of research in the discipline (see on-line BIOL and FAMA [Style Guide](#) for more information about the preparation of the documents required to fulfill Thesis Track Requirements). A minimum of 36 hours are required, which can include up to 6 hours of FAMA 5940 Project Research with approval of the GAC. In addition to the required credit hours associated with the research project, there are other required and elective courses that must be taken.

FISHERIES Track:

Course Number	Course Title	Credit Hours	Total Credit Hours
FAMA 5328	Fisheries Ecology and Management*	3	3
FAMA 5329	Fisheries Techniques	3	3
FAMA 5370	Mariculture*	3	3
MATH 6315	Statistical Methods in Research	3	3
MATH 6316 or CMSS 6323	Statistical Methods in Research II Experimental Design	3	3
FAMA 5392	Thesis Proposal (proposal must be approved by GAC to receive credit)	3	3
FAMA 5393	Thesis Research (first draft of the thesis must be produced to receive credit)	3	3
FAMA 5394	Thesis Submission (final thesis manuscript must be approved by the GAC to receive credit)	3	3
FAMA 5102	Graduate Defense Seminar (taken in the last semester)	1	1
	Elective, specialized, topical coursework approved by the GAC		11
		Total	36

MARICULTURE Track:

Course Number	Course Title	Credit Hours	Total Credit Hours
FAMA 5370	Mariculture*	3	3
FAMA 5312	Mariculture Techniques	3	3
FAMA 5328	Fisheries Ecology and Management*	3	3
MATH 6315	Statistical Methods in Research	3	3
MATH 6316 or CMSS 6323	Statistical Methods in Research II Experimental Design	3	3
FAMA 5392	Thesis Proposal (proposal must be approved by GAC to receive credit)	3	3
FAMA 5393	Thesis Research (first draft of the thesis must be produced to receive credit)	3	3
FAMA 5394	Thesis Submission (final thesis manuscript must be approved by the GAC to receive credit)	3	3
FAMA 5102	Graduate Defense Seminar (taken in the last semester)	1	1
	Elective, specialized, topical coursework approved by the GAC		11
		Total	36

*Students with demonstrated competence in this course (i.e., have taken this or a similar course as an undergraduate) **and** approved by your GAC, may substitute another course (form required).

FAMA Professional (non-thesis) Track Requirements

The FAMA professional track MS degree is designed to provide a broad understanding of fisheries or mariculture and is focused upon practical, hands-on experience in fisheries or mariculture techniques. This program consists of required coursework, elective coursework, and internship hours. A minimum of 36 credit hours are required for graduation. A GAC is not required as the focus of this program is on practical, real-world experience and on-the-job training rather than research. However, a student may still wish to have a full mentoring committee. Requirements that exhibit the student's research experience are omitted in favor of providing opportunities for the student to participate as a professional in the field. Differences in the requirements for students in the FAMA professional track are:

1. Students are co-supervised by a FAMA faculty member and a qualified member of the organization providing the internship.
2. Students enter into an internship agreement with the sponsor to maintain a jointly-determined training schedule with specific objectives. These objectives will be in-line with hiring guidelines for the sponsoring entity.
3. Upon completion of the internship, students write a professional paper discussing a particular aspect of their training. This document should be designed for publication in a trade journal, agency bulletin, etc. The topic and format of the document will be approved by the faculty advisor and agent of the sponsor.
4. Students are not required to present at a graduate defense seminar, but may be asked to make a presentation for instructional and training purposes. In lieu of a defense seminar, a student must complete an oral examination in a format jointly agreed upon by the faculty advisor and agent of the internship sponsor (e.g., professional interview, etc.)

Successful completion of the FAMA Professional Track is jointly assessed by the faculty supervisor and internship supervisor. Factors considered include the timely completion of the internship, quality of the intern's work, quality of the professional paper (see on-line BIOL and FAMA [Style Guide](#) for more

information about the preparation of the documents required to fulfill Professional Track Requirements), professional conduct of the candidate, and overall knowledge displayed in the final oral examination.

Students must complete **36 semester credit hours** with a significant portion taken as internship hours. This degree plan may or may not include elective coursework, which is agreed upon between the student and faculty supervisor.

FISHERIES Track:

Course Number	Course Title	Credit Hours	Total Credit Hours
FAMA 5328	Fisheries Ecology and Management*	3	3
FAMA 5329	Fisheries Techniques	3	3
MATH 6315	Statistical Methods in Research	3	3
FAMA 5397	Professional Paper Submission (taken in the last semester)	3	3
FAMA 5998	Internship	variable	Min 9, Max 18
	Elective, specialized, topical coursework approved by the faculty supervisor	variable	Min 6, Max 15
		Total	36

*Students with demonstrated competence in this course (i.e., have taken this or a similar course as an undergraduate) **and** approved by your GAC, may substitute another course (form required).

MARICULTURE Track:

Course Number	Course Title	Credit Hours	Total Credit Hours
FAMA 5370	Mariculture*	3	3
FAMA 5312	Mariculture Techniques	3	3
FAMA 5421	Chemistry of Natural Waters*	4	4
FAMA 5315	Diseases and Parasites of Aquatic Organisms*	3	3
MATH 6315	Statistical Methods in Research	3	3
FAMA 5397	Professional Paper Submission (taken in the last semester)	3	3
FAMA 5998	Internship	variable	Min 9, Max 17
	Elective, specialized, topical coursework approved by the faculty supervisor	variable	Min 0, Max 8
		Total	36

*Students with demonstrated competence in these courses (i.e., have taken these or similar courses as an undergraduate) **and** approved by your GAC, may substitute other courses (form required).

Deadlines

Thesis/Professional Paper and Oral Examination Deadlines

Students must be able to formally present/defend the results of their research (thesis track and some professional track) and complete the oral examination administered by their GAC (or supervisors) by deadlines that are established by the College of Graduate Studies in order to graduate at the end of the semester. These are ***generally two weeks before graduation*** but should be verified with your academic advisor (not GAC supervisor) at the beginning of the semester the student determines in which they will be defending.

Thesis manuscripts must be approved and signed by the GAC and submitted online along with forms and fees according to the College of Graduate Studies [schedule](#) in any given semester.

Professional papers must be approved and signed by the GAC or faculty and internship supervisors and turned in to the Academic Advisor on or before the last day of classes in any given semester.

Graduation Deadlines

You must submit a completed application for graduation through [SAII](#) by the posted deadline. It is highly recommended that you make an appointment with your academic advisor to review your records and be sure you are clear (i.e., all requirements met) for graduation.

Graduation deadlines are posted by the Office of the Registrar at http://registrar.tamucc.edu/degrees_graduation/apply_for_grad.html.

Commencement

For dates, times and location of the commencement ceremonies please visit <http://commencement.tamucc.edu/>.

Interactions With Other Graduate Students

Graduate education is not a solitary endeavor. Students must make opportunities to discuss their projects with other graduate students and offer to assist others in the field or laboratory. Beyond generating camaraderie, this will give students a more comprehensive understanding of the many specific issues and problems in coastal and marine systems, expose them to a broad array of lab/field techniques, provide ideas for research, and provide opportunities to reciprocate in supporting each other.