Marine Biology, PhD

Program Description
The Marine Biology Program is designed for students with an interest in one or more of the subdisciplines of marine biology and who wish to pursue careers in higher education, government, or private industry. This unique, interdisciplinary degree program (IDP) combines the strengths of various departments at three universities within the Texas & M University System: Life Sciences at Texas & M Corpus Christi, Marine Biology and Marine Sciences at Texas & M University at Galveston (TAMU-G), and Wildlife and Fisheries Sciences, Oceanography and Biology at Texas & M University (TAMU). Students can choose courses from any campus and form committees with any of the participating faculty. Advantages of the interdisciplinary degree format for Marine Biology students include a diverse, internationally recognized faculty with high scholarly productivity and extramural funding, as well as two campuses strategically located on the Gulf of Mexico. Students receive their degree from both Texas & M University and Texas & M University-Corpus Christi.

The Marine Biology program offers the Master of Science and the Doctor of Philosophy degrees in Marine Biology. A personalized graduate advisory committee guides each student through the conception, design, construction, and execution of a marine biology-based inquiry.

Student Learning Outcomes
As part of their progression through the Marine Biology Program, Doctor of Philosophy students will:

- Gain an in-depth of knowledge of essential and emerging concepts in the field of marine biology.
- Perform scholarly hypothesis-driven research grounded in marine biological principles and concepts.
- Demonstrate advanced communication skills through either presentation of research results at professional scientific meetings and/or through peer-reviewed publication.
- Develop a skill set and research record such that they can secure employment in academia, state/federal agencies, private companies, or non-governmental organizations.

Admission Requirements
Those seeking admission to the Marine Biology Program should apply through the Office of Recruitment and Admissions. In addition to the documents required by that office, applicants must submit an essay of no more than 1,000 words describing their educational and career goals, and interests as they relate to the faculty in the Marine Biology Program; a list of names of faculty members contacted; three letters of recommendation from people familiar with their potential for graduate studies; transcripts of all previous undergraduate/graduate work; Graduate Record Examination (GRE) scores that are not more than 5 years old; and a résumé. Additional requirements exist for international students, including TOEFL or IELTS scores from ETS taken within the last two years for students from countries where English is not the native language, and a course by course foreign transcript evaluation through an approved service (refer to the Admission section of this catalog). All relevant supplemental materials (such as publications or other documents that include information about relevant experiences) that are submitted with the application will be considered. Persons seeking admission to the Ph.D. Program in Marine Biology should first contact the program faculty and identify a faculty member will to serve as the graduate advisor. Applicants will not be admitted to the program without a graduate advisor.

Completed applications must be received by the CGS by the specified priority deadlines:

- Fall Semester - December 1
- Spring Semester - June 1

Incomplete applications are not considered. The applicant will be notified of acceptance or rejection by letter.

Teaching assistantships, graduate research assistantships, and fellowships may be available to admitted degree-seeking students who maintain full-time graduate student status (9 hours/fall and spring semester, and 3 hours/summer). The completed Teaching Assistant Application (http://www.sci.tamucc.edu/students/gradfunding.html) and all other materials requested for evaluation should be submitted to the office indicated on that form. For full consideration, the deadline for submitting applications is December 1 for the following academic year. A limited number of fellowships are available, and faculty members conducting funded research projects often hire qualified graduate students as Research Assistants. Students will need to contact faculty members in their field of interest for information on these opportunities.

Non-degree students may enroll in courses for which they have adequate academic preparation, but they may not apply more than nine credit hours of work taken in non-degree status to a graduate degree program. Non-degree students must consult with the Marine Biology Program.
Coordinators to determine those courses in which they may enroll and those courses they may later apply to a Marine Biology degree, should they be admitted into the program. Students must earn a grade of “B” or better in each of the prescribed courses in order to have the courses apply to the plan of study.

**Academic Preparation**

Students entering the Marine Biology Program are expected to have a strong background in biological and physical sciences, with competencies equivalent to those required of Texas A&M University-Corpus Christi undergraduate biology majors (see the biology section of the undergraduate catalog). Therefore, a student who lacks adequate academic preparation in a particular subject area, but who is otherwise well-qualified to enter the graduate program, may be required to complete appropriate undergraduate course work in addition to that specified for the graduate degree. Such courses (4000-sequence or lower) are regarded as foundation or leveling work and do not count as credit towards the total required for completion of the graduate degree.

**Advising and the Graduate Advisory Committee**

After being accepted into the MARB program and enrolling, the most important first step is forming the graduate advisory committee (GAC). Students should form a graduate advisory committee with the approval of their advisor by the end of their second long semester in the MARB program to help guide them through their degree program. Students are strongly encouraged to meet with their committee at a minimum of once per year to seek continual guidance on their research program.

Composition and size of the committee should reflect the scope of the intended graduate studies and should be developed with substantial input from the student’s advisor(s). The advisor(s) will serve as chair(s) of the committee. The majority of the committee members must be members of the Marine Biology Participating IDP Graduate Faculty (PGF) from TAMUS schools of TAMU-CC, TAMU, and TAMUG. Recognized scholars who are not a member of the TAMU-CC graduate faculty may serve on a student’s committee by submitting a letter of request from the advisor, through the TAMU-CC Marine Biology Program Coordinator, with the individual’s resume attached as well as a completed “Form 2” from CGS (Graduate Faculty Status Application). The scholar may serve upon approval of the TAMU-CC CGS. Only one CGS appointed scholar may be counted toward the minimum committee member composition. For Doctoral (Ph.D.) in Marine Biology degrees, the committee shall consist of no fewer than four members, three of which must belong to the MARB IDP Graduate Faculty, including the advisor(s). At least one of the members is encouraged to be from another IDP campus. The Chair (and/or Co-Chair) must be a member of the MARB IDP Graduate Faculty.

Upon submitting a degree plan for Ph.D. students, CGS will appoint a Graduate Faculty Representative (GFR) to the committee. The role of this appointee is to serve as an impartial member of the committee to ensure the integrity of University standards as they apply to the Ph.D. process. The GFR attends both the comprehensive/qualifying examination and the final defense/oral examination.

**Enrollment Requirements**

All students are required to maintain continuous registration until completion of all requirements for graduation unless a specific leave of absence is granted (in writing) by the department. Students funded through scholarships, fellowships and assistantships are required to maintain a minimum of 9 hours/fall and spring semester, and 3 hours/summer. To continue to maintain the proper number of hours after absence is granted (in writing) by the department. Students must complete all formal coursework on the degree plan, a student may register for MARB 6940 Project Research.

**Coursework and Research**

Courses and research for the graduate degrees can be taken from Texas A&M-Corpus Christi, TAMU, or TAMU-G with the approval of the student’s GAC. Students must demonstrate to the GAC that the selection of classes or research projects produces a coherent course of study focused on the student’s particular area of emphasis. Depending on the emphasis area, elective and specialized coursework selections may be chosen from biology, biomedical sciences, chemistry, coastal and marine system science, computer science, environmental science, geographic information science, geology, fisheries and mariculture, mathematics, or other course offerings as stipulated and approved by the GAC.

Students accepted to the Marine Biology PhD program without an MS degree in an appropriate discipline are required to take more semester hours of credit than students accepted with such a degree.

### A. Specialized and Elective Coursework

The program specifies the minimum number of semester credit hours (SCH) that must be earned from regular, graded (non-research, non-variable credit) coursework: for students with only a bachelor’s degree, 43 of 96 total hours; and for PhD students with an appropriate master’s degree, 21 of 64 total hours. Classes or research projects designated as part of the specialized coursework requirement must receive the approval of a student’s GAC.

### B. Research Coursework

Three courses form the required research component of the degree for PhD students: MARB 6392 - Dissertation Proposal, MARB 6393 - Dissertation Research, MARB 6394 - Dissertation Submission. PhD students should take MARB 6940 - Dissertation Project Research to fulfill the proper number of semester course hours; this course is graded satisfactory/unsatisfactory and may be repeated. Students must enroll in MARB 6394 - Dissertation Submission during their last semester when their dissertations will be completed.
1. PhD Students Admitted with Only a Bachelor’s Degree

Students accepted to the Marine Biology PhD Program with only a bachelor’s degree (i.e., without an MS degree in an appropriate discipline) must complete a minimum of 96 semester hours of coursework and research.

- **MARB 6312 - Communicating Science Seminar** 3 sem. hrs.
- **MARB 6340 - Marine Organisms and Processes** 3 sem. hrs.
- **MARB 6341 - Evolution and Genomics of Marine Organisms** 3 sem. hrs.
- **MARB 6392 - Dissertation Proposal** 3 sem. hrs.
- **MARB 6393 - Dissertation Research** 3 sem. hrs.
- **MARB 6394 - Dissertation Submission** 3 sem. hrs.
- **MARB 6440 - Dissertation Project Research** 1 - 9 sem. hrs. (taken to a total of 46 sem. hrs.)

Select at least one of the following:

- **CMSS 6303 - Natural Systems Analysis** 3 sem. hrs. AND / OR
- **CMSS 6323 - Experimental Design** 3 sem. hrs.
- Specialized, elective, and topical coursework 29 sem. hrs.

Total: 96

2. PhD Students Admitted with a Master’s Degree

Students accepted to the Marine Biology PhD Program with an MS degree in an appropriate discipline must complete a minimum of 64 hours of coursework and research.

- **MARB 6312 - Communicating Science Seminar** 3 sem. hrs.
- **MARB 6340 - Marine Organisms and Processes** 3 sem. hrs.
- **MARB 6341 - Evolution and Genomics of Marine Organisms** 3 sem. hrs.
- **MARB 6392 - Dissertation Proposal** 3 sem. hrs.
- **MARB 6393 - Dissertation Research** 3 sem. hrs.
- **MARB 6394 - Dissertation Submission** 3 sem. hrs.
- **MARB 6440 - Dissertation Project Research** 1 - 9 sem. hrs. (taken to a total of 36 sem. hrs.)

Select at least one of the following:

- **CMSS 6303 - Natural Systems Analysis** 3 sem. hrs. AND / OR
- **CMSS 6323 - Experimental Design** 3 sem. hrs.
- Specialized, elective, and topical coursework 7 sem. hrs.

Total: 64

**Doctoral Candidacy and the Comprehensive/Qualifying Examination**

To be admitted to candidacy for the MARB Ph.D. degree a student must have a cumulative GPA and a degree plan GPA of at least 3.0, satisfy the residence requirement (completion of 9 credit hours in two consecutive long semesters), and pass the qualifying examination. Formal Comprehensive/Qualifying examinations (often referred to as “preliminary exams”) for the Ph.D. may be given by the student’s GAC if the student is within 6 hours of completing formal degree plan coursework (i.e., except **MARB 6440 - Dissertation Project Research**) but must be given before the end of the semester following completion of regular coursework on the degree plan, no later than the end of the 4th (for students with M.S.) or 6th (for students with B.S.) long semester in the program. An approved dissertation proposal must be on file prior to taking the qualifying exam. Students and/or committee chair should consult with Ronnie Emanuel, Ronnie.emanuel@tamucc.edu, to ensure that the proposal has been filed. A student must be admitted to degree candidacy at least 1 year before the date of the final dissertation defense/oral examination. CGS will not authorize a final dissertation defense/oral examination for any doctoral student who has not been admitted to candidacy.

Qualifying exams will cover all areas within the scope of the student’s doctoral program, and will involve written exams from each GAC member, followed by an oral exam administered by the committee as a whole. Committee members may participate remotely if necessary, but must be present for the entire oral exam. Typically, a student will have (at most) a single day to complete the written questions from each committee member.
Each committee member will provide an evaluation of the student’s performance on the written exam. In order to proceed to the oral exam, a student must pass the written exam, as determined by the committee. Individuals unable to pass the written examination(s) may be permitted to retake the exam when sufficient time has passed to allow students to address inadequacies emerging from the first examination.

Upon completion of the oral exam, the GAC members will then determine one final outcome (“Pass” or “Fail”). The GFR does not vote on student performance, but may ask questions and is responsible for ensuring fairness of the exam. Two or more dissenting votes in the qualifying exam constitute “Fail”. The graduate advisory committee chairman will report the results of the examination in a form to the CGS signed by all committee members. The form (Form “B”) is available at: [http://gradschool.tamucc.edu/forms.html](http://gradschool.tamucc.edu/forms.html) under “Doctoral Program”. A copy of the form should also be provided to Ronnie Emanuel.

If the student successfully passes the qualifying examination, they will be advanced to candidacy. All requirements for the degree must be completed within 7 years and advancing to candidacy within the first 5 years. If a student fails the qualifying exams, he/she may be dropped from the program OR the committee may recommend that the student complete a master’s degree and be administratively withdrawn from the doctoral program. However, there is no guarantee of acceptance to master’s program.

**Format and Style of Dissertation**

The dissertation must follow style requirements established in the Marine Biology Graduate Handbook and must be approved and signed by the members of the student’s GAC, and the Dean of Graduate Studies. Guidance can be found in the Marine Biology Student Handbook ([www.marinebiology.tamucc.edu](http://www.marinebiology.tamucc.edu)). For more information on formatting requirements, consult the College of Graduate Studies Doctoral Student information page ([https://gradschool.tamucc.edu/current_students/doctoral_students.html](https://gradschool.tamucc.edu/current_students/doctoral_students.html)).

Once the dissertation is completed and approved by the GAC, the results of the research must be presented orally and publicly. The final defense/oral examination usually takes place immediately following the seminar (see below). Graduate students are expected to present their research at a scientific meeting (other than their graduate seminar) prior to graduation.

Upon approval by a student’s GAC, a copy of the dissertation will be sent to the Dean of Graduate Studies. At the time of successful completion of the final defense/oral examination, committee members will sign the dissertation and return it to the Dean of Graduate Studies for final approval and signature. See also “Requirements for Doctoral Programs” in the general section of this catalog.

**Final Oral Defense Examination**

Each student must pass a final oral defense examination during the last semester before graduation. The student’s GAC administers this examination which covers topics related to: (1) all graduate coursework undertaken for the Marine Biology program, (2) the student’s specific research area, and (3) broad concepts of general and marine biology including familiarity with the literature and appropriate professional societies. The student is responsible for scheduling the defense with the faculty involved. Doctoral students must enroll in the course [MARB 6394 - Dissertation Submission](https://gradschool.tamucc.edu/current_students/doctoral_students.html) during the semester in which they are planning to defend their dissertation and/or graduate. A student who fails the defense may repeat it once, but only after an interval of four months or more, and will be required to re-enroll in MARB 6394 - Dissertation Submission. If a student fails the second defense, he or she will be terminated from the program.

**For Additional Information**

<table>
<thead>
<tr>
<th>Website:</th>
<th><a href="http://www.marinebiology.tamucc.edu">www.marinebiology.tamucc.edu</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus address:</td>
<td>Science Lab 2; Phone (361) 825-2041</td>
</tr>
<tr>
<td>Mailing address:</td>
<td>Marine Biology Program, Unit 5860</td>
</tr>
<tr>
<td></td>
<td>College of Science and Engineering</td>
</tr>
<tr>
<td></td>
<td>Texas A&amp;M University-Corpus Christi</td>
</tr>
<tr>
<td></td>
<td>6300 Ocean Drive, Corpus Christi, Texas 78412-5860</td>
</tr>
</tbody>
</table>
Texas A&M University Corpus Christi 2019-2020 Graduate Catalog

Marine Biology, MS

Program Description
The Marine Biology Program is designed for students with an interest in one or more of the subdisciplines of marine biology who wish to pursue careers in higher education, government, or private industry. This unique, interdisciplinary degree program (IDP) combines the strengths of various departments at three universities within the Texas A&M University System: Life Sciences at Texas A&M-Corpus Christi, Marine Biology and Marine Sciences at Texas A&M University at Galveston (TAMU-G), and Wildlife and Fisheries Sciences, Oceanography and Biology at Texas A&M University (TAMU). Students can choose courses from any campus and form committees with any participating faculty. Advantages of the interdisciplinary degree format for Marine Biology students include a diverse, internationally recognized faculty with high scholarly productivity and extramural funding, as well as two campuses strategically located on the Gulf of Mexico. A student in the IDP receives his or her degree from both Texas A&M University and Texas A&M University-Corpus Christi.

The Marine Biology program offers the Master of Science and the Doctor of Philosophy degrees in Marine Biology. A personalized graduate advisory committee guides each student through the conception, design, construction, and execution of marine biology-based inquiry.

Student Learning Outcomes
As part of their progression through the Marine Biology Program, Master of Science students will:

- Gain an in-depth knowledge of essential and emerging concepts in the field of marine biology.
- Perform scholarly hypothesis-driven research grounded in marine biological principles and concepts.
- Demonstrate advanced communication skills through either presentation of research results at professional scientific meetings and/or through peer-reviewed publication.
- Develop a skill set and research record such that they can secure employment in academia, state/federal agencies, private companies, or non-governmental organizations.

Admission Requirements
Those seeking admission to the Marine Biology Program should apply online through the Office of Recruitment and Admissions. In addition to the documents required by that office, applicants must submit an essay of no more than 1,000 words describing their educational and career goals, and interests as they relate to the faculty in the Marine Biology Program; a list of names of program faculty members contacted; three letters of recommendation from people familiar with their potential for graduate studies; transcripts of all previous undergraduate/graduate work; Graduate Record Examination (GRE) scores that are not more than 5 years old; and a résumé. Additional requirements exist for international students, including TOEFL or IELTS scores from ETS taken within the last two years for students from countries where English is not the native language, and a course by course foreign transcript evaluation through an approved service (refer to the Admission section of this catalog). All relevant supplemental materials (such as publications or other documents that include information about relevant experiences) that are submitted with the application will be considered. Persons seeking admission to the M.S. Program in Marine Biology should first contact the program faculty and identify a faculty member willing to serve as the graduate advisor. Applicants will not be admitted to the program without a graduate advisor.

Completed applications must be received by the Office of Recruitment and Admissions by the specified priority deadlines:

- Fall Semester - December 1
- Spring Semester - June 1

Incomplete applications will not be considered. The applicant will be notified of acceptance or rejection by letter.

Teaching assistantships, graduate research assistantships, and fellowships may be available to admitted degree-seeking students who maintain full-time graduate student status (9 hours/fall and spring semester, and 3 hours/summer). The completed Teaching Assistant Application (http://www.sci.tamucc.edu/students/gradfunding.html) and all other materials requested for evaluation should be submitted as per instructions on that form. For full consideration, the deadline for submitting applications is December 1 for the following academic year. A limited number of fellowships are available, and faculty members conducting funded research projects often hire qualified graduate students as Research Assistants. Students will need to contact faculty members in their field of interest for information on these opportunities.

Non-degree students may enroll in courses for which they have adequate academic preparation, but they may not apply more than nine credit hours of work taken in non-degree status to a graduate degree program. Non-degree students must consult with the Marine Biology Program
Coordinators to determine those courses in which they may enroll and those courses they may later apply to a Marine Biology degree, should they be admitted into the program. Students must earn a grade of “B” or better in each of the prescribed courses in order to have the courses apply to the plan of study.

**Academic Preparation**

Students entering the Marine Biology Program are expected to have a strong background in biological and physical sciences, with competencies equivalent to those required of biology majors graduating from Texas A&M University-Corpus Christi (see the biology section of the undergraduate catalog). Students lacking adequate academic preparation in a particular subject area, but who are otherwise well-qualified to enter the graduate program, may be required to complete appropriate undergraduate course work in addition to that specified for the graduate degree. Such courses (4000-sequence or lower) are regarded as foundation or leveling work and do not count as credit towards the total required for completion of the graduate degree.

**Advising and the Graduate Advisory Committee**

After being accepted in the Marine Biology (MARB) program and enrolling, the student must form a graduate advisory committee (GAC). **Students should form a graduate advisory committee with the approval of their advisor by the end of their first long semester in the MARB program to help guide them through their degree program.** Students are strongly encouraged to meet with their committee at a minimum of once per year to seek continual guidance on their research program.

Composition and size of the committee should reflect the scope of the intended graduate studies and should be developed with substantial input from the student’s advisor(s). The advisor(s) will serve as chair(s) of the committee. The majority of the committee members must be members of the Marine Biology Participating IDP Graduate Faculty (PGF) and TAMUS schools of TAMU-CC, TAMU, and TAMUG. Recognized scholars who are not a member of the TAMU-CC graduate faculty may serve on a student’s committee by submitting a letter of request from the advisor, through the TAMU-CC Marine Biology Program Coordinator, with the individual’s resume attached as well as a completed “Form 2” from CGS (Graduate Faculty Status Application). The scholar may serve upon approval of the TAMU-CC CGS. Only one CGS appointed scholar may be counted toward the minimum committee member composition. For Masters of Science in Marine Biology degrees, the committee shall consist of no fewer than three members, two of which must belong to the MARB IDP Graduate Faculty, including the advisor(s). The Chair (and/or Co-Chair) must be a member of the MARB IDP Graduate Faculty.

**Enrollment Requirements**

All students are required to maintain continuous registration until completion of all requirements for graduation unless a specific leave of absence is granted in writing by the department. Students funded through scholarships, fellowships and assistantships are required to maintain a minimum of 9 hours/fall and spring semester, and 3 hours/summer. To meet enrollment requirements after completing all formal coursework on the degree plan, a student may register for **MARB 5940 - Master's Project Research**.

**Coursework and Research**

The MS in Marine Biology is designed for graduate students who wish to become knowledgeable leaders and professionals with an in-depth education and specialized skills in the field. Students will develop a sense of creative independence that will allow them to practice in and contribute to a variety of professions and fields of scholarship. For MS students, the program offers a thesis and a non-thesis degree option (see below). Thesis students may change between the Thesis and Non-Thesis option at any time with the approval of the GAC. Specific option/degree requirements must be met. A student may request approval for transfer of a maximum of nine semester credit hours of graduate courses from other colleges to a MS in Marine Biology degree plan. Courses and research for the graduate degrees can be taken from Texas A&M Corpus Christi, TAMU, or TAMU-G with the approval of the student’s GAC. Students must demonstrate to the GAC that the selection of classes or research projects produces a coherent course of study focused on the student’s particular area of emphasis.

A. **Specialized and Elective Coursework**

Depending on the emphasis area, elective and specialized coursework selections may be chosen from biology, biomedical sciences, chemistry, coastal and marine system science, computer science, environmental science, geographic information science, geospatial surveying engineering, geology, fisheries and mariculture, mathematics, or other course offerings as stipulated and approved by the GAC. Courses or research projects designated as part of the specialized coursework requirement must receive the approval of a student’s GAC.

B. **Coursework Requirements and Limitations**

The program specifies the minimum number of semester credit hours (SCH) that must be earned from regular, graded (non-research, non-variable credit) coursework: for students in the MS non-thesis option, 35 of 36 total hours; for students in the MS thesis option, 25 of 32 total hours. A student earns SCH credit for **MARB 6596 - Directed Independent Study**, but may apply only 3 SCH toward the degree without prior approval of the student’s GAC and the Marine Biology Program Coordinator.

**1. Non-Thesis Option**
The non-thesis Master’s Degree is designed to provide a broad understanding of marine biology. The curriculum will especially benefit those individuals in professional employment who seek advancement or additional training to enhance their knowledge and skills. The student is required to write a professional paper based on research conducted in MARB 5397 - Directed Research. The paper will be on a topic approved by the student’s GAC and will demonstrate the student’s abilities in organization, data collection, and scientific writing. To graduate under the non-thesis degree plan, a student must complete a minimum of 36 graduate semester credit hours. The student will complete:

- **MARB 5397 - Directed Research** 3 sem. hrs.
- **MARB 6312 - Communicating Science Seminar** 3 sem. hrs.
- **MATH 6315 - Statistical Methods in Research I** 3 sem. hrs.
- **MARB 6340 - Marine Organisms and Processes** 3 sem. hrs.
- **MARB 6341 - Evolution and Genomics of Marine Organisms** 3 sem. hrs.
- Elective, specialized, and topical coursework 21 sem. hrs.

**Total: 36**

### 2. Thesis Option

The thesis Master’s Degree requires a thesis based upon original research conducted during the period that the student is enrolled at Texas A&M University-Corpus Christi. The research must include a review of relevant literature, a description of the results from original research on a topic approved by the GAC, statistical analysis when appropriate, and an appropriate discussion of the results. To graduate under the thesis degree plan, a student must complete a minimum of 32 graduate semester credit hours. Three courses form the required research component of the degree for the MS (thesis): MARB 5392 - Thesis Proposal, MARB 5393 - Thesis Research, and MARB 5394 - Thesis Submission. Students must enroll in MARB 5394 - Thesis Submission during their last semester when their theses will be completed. The student will complete:

- **MARB 5392 - Thesis Proposal** 3 sem. hrs.
- **MARB 5393 - Thesis Research** 3 sem. hrs.
- **MARB 5394 - Thesis Submission** 3 sem. hrs.
- **MARB 6312 - Communicating Science Seminar** 3 sem. hrs.
- **MARB 6340 - Marine Organisms and Processes** 3 sem. hrs.
- **MARB 6341 - Evolution and Genomics of Marine Organisms** 3 sem. hrs.
- **MATH 6315 - Statistical Methods in Research I** 3 sem. hrs.
- Elective, specialized, and topical coursework 11 sem. hrs.

**Total: 32**

### Format and Style of Thesis or Professional Paper

The thesis or non-thesis professional paper must follow style requirements established in the Marine Biology Graduate Handbook and must be approved and signed by the members of the student’s GAC, the Chair of the Department of Life Sciences, and the Dean of Graduate Studies. Guidance can be found in the Marine Biology Student Handbook ([www.marinebiology.tamucc.edu](http://www.marinebiology.tamucc.edu)). For more information on formatting requirements, consult the College of Graduate Studies Master’s Student information page ([https://gradschool.tamucc.edu/current_students/masters_students.html](https://gradschool.tamucc.edu/current_students/masters_students.html)). Once the thesis/professional paper is completed and approved by the GAC, the results of the research must be presented orally and publicly. The final defense/oral examination usually takes place immediately following the seminar. Graduate students are encouraged to present their research at a scientific meeting (other than their graduate seminar) prior to graduation. Upon approval by a student’s GAC, a copy of the thesis/professional paper will be sent to the Dean of Graduate Studies. At the time of successful completion of the final defense/oral examination, committee members will sign the thesis/professional paper and return it to the Dean of Graduate Studies for final approval and signature.

### Final Oral Defense Examination

Each student must pass a final oral defense examination during the last semester before graduation. Students should enroll in MARB 5394 - Thesis Submission during the semester in which they are planning to defend their thesis and/or graduate. The student’s GAC administers this examination which covers topics related to: (1) all graduate coursework undertaken for the Marine Biology program, (2) the student’s specific research area, and (3) broad concepts of general and marine biology including familiarity with the literature. The student is responsible for scheduling the defense with the faculty involved. A student who fails the defense may repeat it once after an interval of four months or more. If a student fails the second defense, he or she will be terminated from the program. Both MS options require a final
examination: students pursuing the thesis option may schedule the final examination after completion of all course work and after at least the first draft of the thesis has been submitted to their GAC for review; non-thesis students may schedule the final examination after completion of all course work.

For Additional Information

Website: www.marinebiology.tamucc.edu

Campus address: Science Lab 2, Room 102; Phone (361) 825-2041

Mailing address: Marine Biology Program, Unit 5860
College of Science and Engineering
Texas A&M University-Corpus Christi
6300 Ocean Drive, Corpus Christi, Texas 78412-5860