

# Marine Biology



**TEXAS A&M UNIVERSITY  
GALVESTON CAMPUS®**

**Graduate Student Handbook**

**2021-2022**

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## **Introduction**

This document has been developed for the guidance of faculty members and graduate students associated with the Marine Biology Graduate Program (MARB) at the Texas A&M University at Galveston (TAMUG) campus. For prospective students, it contains a brief overview of the program and instructions for applying for admission and selecting an advisor. For admitted students, it contains information about the requirements for successfully completing the degree, the course of study, selecting a graduate committee, preliminary exams/admission to degree candidacy (Ph.D. students), the defense, and the final oral examination. Students associated with the M.S. and Ph.D. in the MARB graduate program at TAMUG are required to follow these departmental and university guidelines and procedures.

The faculty in the Department of Marine Biology have developed an exciting curriculum of graduate classes, but students can also choose courses offered by other TAMUG departments or on the main campus, especially if offered with a distance education (DE) option.

The goal of the graduate program is to attract high-quality students interested in one or a combination of the subdisciplines of marine biology who wish to pursue careers in higher education, government, or private industry. The principal strengths of this marine biology program lie in the international recognition, scholarly productivity, and extramural funding of its diverse faculty, as well as its strategic location on the Gulf of Mexico.

For additional information, please check the more general graduate handbook for our campus (<https://www.tamug.edu/grad/images/GraduateHandbook21-22.pdf>) and the website of the TAMU Graduate and Professional School (Grad School): <https://grad.tamu.edu>.

## **Admission to the Marine Biology M.S. and Ph.D. Programs**

Before starting an admissions application, prospective Ph.D. and thesis-option M.S. students will need to identify a faculty advisor in the Department of Marine Biology. Please see [https://www.tamug.edu/marb/faculty/Marine\\_Biology\\_IDP\\_Faculty.html](https://www.tamug.edu/marb/faculty/Marine_Biology_IDP_Faculty.html) for a list of MARB faculty members and their specialties. Students should contact potential advisors approximately one year prior to the projected start date to establish whether they will have openings for new graduate students. Students should provide the name of the graduate advisor in the personal statement. Non-

thesis students do not need to contact potential advisors before applying. The MARB Department Head will be their Graduate Advisor.

**A complete application consists of:**

1. An online GraduateCAS application and fee (visit website for more details: <https://www.tamug.edu/marb/Graduate/ProspectiveStudents.html>)
2. A statement of purpose (up to 2 pages): the statement should address the applicant's qualifications and motivation for pursuing a graduate degree in Marine Biology, long-term career goals, and the area(s) of marine biology of particular interest. Applicants should also indicate the graduate advisor(s) they contacted and elaborate on any specific research projects discussed with their prospective advisor.
3. Three letters of recommendation: applicants can upload letters electronically through the GraduateCAS system. Applicants should request them from people who are familiar with their potential for graduate studies. Letters from members of the academic community are preferred.
4. A curriculum vitae (CV) or professional resume
5. Unofficial transcripts of all previous undergraduate/graduate work (including transcript evaluations of all work done at foreign institutions) need to be uploaded in the GraduateCAS system. **Applicants who attended TAMU or TAMUG in the past are also required to upload their TAMU or TAMUG unofficial transcript to the GraduateCAS system.** Please allow extra time for review of transcripts from foreign institutions. Official transcripts will be required upon acceptance\*.
6. For international applicants whose native language is not English, a Test of English as a Foreign Language (TOEFL) is required. The TOEFL must be taken within the last two years. Additional information about TOEFL requirements is available here: <https://admissions.tamu.edu/international/graduate>.

\*To be considered official, all required postsecondary academic records must come 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.

It is the applicant's responsibility to ensure that the application is complete by the deadline to assure full consideration. Applications in the received status of GraduateCAS will not be reviewed. Acceptance into the MARB graduate program is

competitive and based on consideration of all application materials. Relevant life experiences may also provide a substantial basis for consideration. A campus visit with personal interviews involving prospective faculty advisors is highly recommended.

## Application Deadlines

The MARB graduate program admits students in Fall or Spring semesters only. Fall admission is usually preferable because financial support may not be available for Spring admissions. The Graduate Affairs Committee will only review complete applications.

### Fall

There are three times during the fall admission season when the Graduate Affairs Committee reviews applications. All applicants are encouraged to submit their applications and supplemental items early. If an application is not complete by a respective deadline, it will be reviewed in the next round, but no applications will be considered after the May 1 deadline. The Graduate Affairs Committee evaluates applications independently of financial awards (see “Financial Support”).

December 1	Early decision deadline for Ph.D. or M.S. applicants (who would like an early decision)  The Graduate Affairs Committee reviews applications by early January
February 15	Deadline for Ph.D. and thesis-option M.S. applicants to be considered for 1-year MARB Awards or 2-year TAMUG Graduate Fellowships  The Graduate Affairs Committee reviews applications by the end of February
May 1	Final deadline for all applicants  The Graduate Affairs Committee reviews applications by May 15

## **Spring**

October 1 Final deadline for all applicants

The Graduate Affairs Committee reviews applications by the end of October.

## **Financial Support**

A limited number of assistantships are available to MARB graduate students at TAMUG. Assistantships are available at a half-time (20 hour/week) 9-month or 12-month appointment.

Students who hold assistantships must be enrolled as a full-time student (at least 9 hours/fall and spring semester, and 6 hours/summer) in the MARB graduate program. Some assistantships have reappointments, which require reapplication each year, and students should not assume that the appointment will continue automatically.

## **One-Year MARB Awards**

A limited number of assistantships are available through the Research and Graduate Studies Office (RGSO) for incoming doctoral students. Based on funding availability, awards are also occasionally available for thesis-option M.S. students. The assistantship is a 12-month appointment and not eligible for reappointment. MARB Awards are merit-based and require a nomination letter from the graduate advisor (no separate application is required from the applicant). The selection is made by the Research Advisory Council (RAC). Interested applicants should contact their faculty advisor.

## **Two-Year Competitive Graduate Student Fellowships**

A limited number of assistantships are available through the Research and Graduate Studies Office (RGSO) for all incoming students to the TAMUG campus. The assistantship is a 24-month appointment and not eligible for reappointment. Two-Year Graduate Fellowships are merit-based and require a nomination letter from the graduate advisor (no separate application is required from the applicant). The selection is made by the Research Advisory Council (RAC). Interested applicants should contact their faculty advisor.

### **Teaching Assistantships**

Teaching assistantships are available each year. Interested applicants should contact their faculty advisor about eligibility as well as application procedures and deadlines, appointment durations, and course-load requirements.

### **Research Assistantships**

A limited number of research assistantships are available through research institutes or centers and individual faculty members; students should consult with institute or center directors and individual faculty members to identify these funding sources.

### **Loans and Scholarships**

Students should consult Financial Management Systems (FMS) for information regarding student loans and scholarship information.

### **Fellowship and Assistantship Compensation**

First year Master of Science students receive \$1800/month. Second year Master of Science Thesis-Option students receive \$1,850/month once their Degree Plan and Proposal are approved.

Doctoral students entering with a BS receive \$1800/month. Doctoral students entering with a M.S. receive \$1900/month. Doctoral students having passed the preliminary exam and advanced to candidacy receive \$2000/month.

All increases start the semester following change of status.

### **Texas 99 Hour Rule**

Doctoral students have seven years (21 semesters) to complete their doctoral degree without being penalized. During the seven years, students who are otherwise eligible for in-state tuition will be charged as such, even if they accumulate more than 99 doctoral hours. After seven years (21 semesters), students who have accumulated more than 99 doctoral hours will be charged tuition at a rate equivalent to out-of-state tuition regardless of funding. Students who have been granted individual exemptions for the doctoral hour cap limit by the Texas Higher Education Coordinating Board and those students in programs that have received programmatic exemptions have 130 doctoral hours and 21 semesters before they are penalized with a higher tuition rate.

Please note that not all graduate courses are coded as 'doctoral'. In addition, the count to 99 doctoral hours does not begin until a doctoral student is classified as a G8. Students may view their hour count through the Howdy Portal.

## **Fulfilling MARB M.S. and Ph.D. Graduate Degree Requirements**

Completing a M.S. requires completing the following milestones:

1. Select a Graduate Advisor/Chair (during the admissions process)
2. Form a Student Advisory Committee
3. Create and complete courses on the degree plan
4. Develop a research proposal (M.S. thesis-option only)
5. Conduct the proposed research (M.S. thesis-option only)
6. Write a professional paper/final exam (M.S. non-thesis option only)
7. Oral Thesis defense/final exam
8. Write thesis (M.S. thesis-option only)

**\* Important - funding is contingent on satisfactory progress and adhering to milestone deadlines.**

Completing a Ph.D. requires completing of the following milestones:

1. Select a Graduate Advisor/Chair (during the admissions process)
2. Form a Student Advisory Committee
3. Create and complete courses on the degree plan
4. Develop a research proposal
5. Pass preliminary examination
6. Conduct the proposed research
7. Oral Dissertation Defense/Final Exam
8. Write dissertation

**\* Important - funding is contingent on satisfactory progress and adhering to milestone deadlines.**

## Core Courses

Students will gain proficiency in a broad range of discipline-appropriate topics in marine biology by completing appropriate graduate-level courses, participating in seminar courses or workshops, conducting relevant research activities, and/or through classroom teaching experience. Proficiency in discipline-appropriate topics will be evaluated and approved by the student's committee Chair and Advisory Committee. Required core courses include **MARB 640 Ecosystem Functions in Marine Environments** and **MARB 668 Marine Evolutionary Biology**. Students are also required to take one (M.S.) or two (Ph.D.) **statistics/computational analysis class** (check program website for eligible classes) and two credits of **seminar** (MARB 681 or other approved). Additional or alternative coursework may be assigned by the student's Advisory Committee or Chair.

## Student Advisory Committee

After being accepted into the MARB graduate program and enrolling, the next important step is forming the Student Advisory Committee (SAC). By the end of their first semester, students should form an SAC to guide them through their degree program. The composition and size of the committee should reflect the disciplinary scope of the student's graduate research program and should be developed in consultation with the student's faculty advisor. The advisor(s) will serve as chair/co-chair of the committee. The committee must be comprised of MARB graduate program faculty members plus one graduate faculty member outside of MARB. A recognized scholar who is not affiliated with TAMUG or TAMU may serve as a Special Appointment or Adjunct Member of the Graduate Faculty following nomination and approval by the Chair of the MARB and the Graduate and Professional School (Grad School). To add Adjunct Members or Special Appointments, please contact the Staff Graduate Advisor.

For Master of Science Marine Biology degrees, the committee shall consist of **no fewer than three members**, including the Chair. The committee Chair must be a member of the MARB graduate faculty. One member must be from a department other than MARB.

Doctoral degree (Ph.D.) committees must include **at least four** members, including the Chair, and at least one of the members should be from a department other than MARB. The committee Chair must be a member of the MARB graduate faculty.

The Chair will evaluate the student's past coursework and experience to determine whether additional coursework is prerequisite to the graduate program and will identify the courses necessary for the degree plan. Remedial coursework not applicable to the graduate program will be required for students without proper graduate preparation in the chosen discipline and should **precede** major coursework and research where possible. Although the student and advisor play the major roles in determining the research project and approaches, project identification and evaluation should incorporate continuing input from the entire advisory committee. The SAC also approves the degree plan, thesis/dissertation proposal and final manuscript, and administers the preliminary examination (for doctoral students) and final professional paper/thesis/dissertation defense. Students will inform the Grad School of the members of the SAC through the online Document Processing Submission System (DPSS) <https://ogsdpss.tamu.edu/>.

## **Degree Plan**

The student, in consultation with the SAC, will develop the proposed degree plan **no later than the end of the first long semester (fall/spring)**. The plan must be submitted to the online Document Processing Submission System (DPSS). Once a student submits a degree plan the Staff Graduate Advisor, SAC, Chair of the MARB graduate program, and the Grad School will approve it. To remain in good standing, the university requires students to maintain a minimum grade point average of 3.0 ("B") for all graduate work undertaken. For more details and limitations see the TAMU Graduate Catalog <https://catalog.tamu.edu/graduate/>.

### Typical Credit Distribution for MARB Graduate Degree Options

	<b>Non-thesis M.S.</b>	<b>Thesis- option M.S.</b>	<b>Ph.D. with prior M.S.</b>	<b>Ph.D. w/o prior M.S.</b>
Required MARB core courses	6	6	6	6
Statistics	3	3	6	6
Electives	25	13	17-23	39-55
Seminar	2	2	2	2
Research	0	8	23-29	21-37
<b>Total credits required</b>	<b>36</b>	<b>32</b>	<b>60</b>	<b>90</b>

### Required Courses for the M.S.

Course Number	Course Name	Semester Credit Hours
MARB 640	Ecosystem Functions in Marine Environments (3 CR)	3
MARB 681*	Seminar (2 semesters)	1
Statistics	Check with Staff Graduate Advisor for eligible classes	3

### Required Courses for the Ph.D.

Course Number	Course Name	Semester Credit Hours
MARB 640	Ecosystem Functions in Marine Environments (3 CR)	3
MARB 668	Marine Evolutionary Biology	3
MARB 681*	Seminar (2 semesters)	1
Statistics	Check with Staff Graduate Advisor for eligible classes	6

\*Or approved alternative

Limited credits for Professional Internships (MARB 684) and Directed Studies (MARB 685) can be included in M.S. and Ph.D. degree plans. Professional Internships take place off campus but still require a MARB faculty sponsor. Directed Studies are special projects under the guidance of a TAMU or TAMUG faculty member.

MARB 684 and MARB 685 credits are especially common for non-thesis M.S. students who are not eligible to register for research hours (MARB 691). Non-thesis M.S. students can include up to 4 credits of MARB 684 and up to 8 credits of MARB 685 in their degree plans. For thesis-option M.S. students and Ph.D. students who are interested in these options, please consult the University catalog about limitations.

### **Annual Progress Report**

To maintain program accreditation, faculty members and students are required to submit an annual progress report during the spring semester, following instructions provided by the Staff Graduate Advisor.

### **Registration Guidelines**

A student in a graduate degree program requiring a thesis or dissertation who has completed all coursework on his/her degree plan other than 691 (Research) is required to maintain continuous registration until all degree requirements are complete. The continuous registration requirement may be satisfied by registering in residence. For more information on these types of registration, please visit the TAMU Graduate Catalog <https://catalog.tamu.edu/graduate/>. Students on various assistantships and other funding sources are required to maintain a certain number of credit hours per semester. Students holding assistantships or fellowships must be enrolled as a full-time student (at least 9 hours/fall and spring semester, and 6 hours/summer). Students should direct questions about registration to the Staff Graduate Advisor.

### **Thesis/Dissertation Research Proposal**

The student's advisor and SAC determine the format of the Research Proposal. Students in M.S. thesis-option and Ph.D. programs should develop a detailed proposal before research begins. At the latest, the Research Proposal Form along with the attached proposal should be submitted via the DocuSign system before the end of the second long semester (fall or spring) for M.S. (thesis-option) students

and before the end of the fourth long semester for Ph.D. students. To locate the Research Proposal Form, please visit <https://grad.tamu.edu/buttons/forms-information>. The Chair of the Graduate Affairs Committee acts as the Department Head for forms provided by the Grad School. The student should report regularly on research progress to the Chair and SAC for guidance, feedback, and approval for any redirection.

## Doctoral Preliminary Exams

The steps to fulfill preliminary exam requirements are posted here:

<https://grad.tamu.edu/New-Current-Students/Getting-a-Degree/Preliminary-Exam-Requirements>.

To advance to candidacy for the MARB Ph.D. degree, students must satisfy all requirements on the preliminary examination checklist. All committee members must participate in the preliminary examination. If a committee member needs to be substituted, students should inform the Staff Graduate Advisor **prior to the preliminary examination**. After passing the required preliminary examination for the doctoral degree, the student must complete all remaining requirements within four calendar years. Students should submit the Preliminary Examination Checklist and Report via the DocuSign System **prior to the exam**. To locate the Preliminary Examination Checklist and Report, please visit <https://grad.tamu.edu/buttons/forms-information>. The Chair of the Graduate Affairs Committee acts as the Department Head for forms provided by the Grad School. **The preliminary examination should be completed by the end of the fifth long semester.**

Preliminary exams will cover all areas within the scope of the student's doctoral program and will involve written exams from each advisory committee member, followed by an oral exam administered by the committee. To schedule the oral preliminary examination, students should contact the MARB Staff to determine how to schedule a room. At their discretion, the SAC and the Grad School may allow one re-examination when adequate time has passed to allow students to address inadequacies emerging from the first examination (normally six months).

## Final Examinations

Research track students (M.S. thesis-option and Ph.D.) are required to orally defend their written thesis or dissertation. The defense will be announced to the campus

community and is open to the public. Research students will need to work closely with both their committee and the Staff Graduate Advisor to set a defense date.

Professional track students (M.S. non-thesis-option) are required to orally defend their professional paper. Defenses for professional papers are only attended by the members of the SAC and are not open to the public. Professional track students should coordinate the completion of their professional paper with their Chair at least a year out from their intended graduation date.

Once a defense or final exam date is determined, the student will need to request that date with the Grad School by submitting a Request and Announcement for Final Examination via DocuSign form. This form requires approval by the Staff Graduate Advisor, Chair and if applicable, Co-Chair of the SAC, the Chair of the MARB Graduate Program (who acts as the Department Head), and the Grad School. Therefore, students need to make sure that the form is submitted in enough time so that the Grad School receives it **no later than 10 business days** out from the defense date. To locate the Request and Announcement of Final Examination form, please visit <https://grad.tamu.edu/buttons/forms-information>. The Chair of the Graduate Affairs Committee acts as the Department Head for forms provided by the Grad School.

## Thesis/Dissertation

The role of the student's advisor is to work with the student on study design, interpretation of results, and professional development, which includes guidance on writing, presenting, and publishing their data. The SAC's role is to supplement the guidance of the advisor and in some cases offer specific expertise that will assist and enhance the student's research program.

The thesis/dissertation is a complete document that will be bound and filed in the TAMU Library. The Thesis Office (<http://thesis.tamu.edu>) at TAMU assists students with the preparation of their electronic thesis/dissertation. The Thesis Office provides advice and handouts during the writing process and publishes the Thesis & Dissertation Manual (<https://grad.tamu.edu/buttons/forms-information>), which includes rules for format. The Thesis Office also holds an online pre-submittal review (<https://grad.tamu.edu/New-Current-Students/Workshops-and-Tutorials/ETD-Online-Pre-Submittal-Conference>) as students prepare to defend and format the final version of their document. After the manuscript is submitted

electronically, the Thesis Office reviews the document for university formatting standards.

When the draft is ready, students should submit it to the chair of their advisory committee. Students should submit the draft as if it were the final. The document should be as perfect as possible with respect to writing and grammar, punctuation and spelling, journal formatting requirements, and with all figures and tables in final format. Students should be prepared to go through the revision process numerous times before the committee Chair is comfortable letting the rest of the committee review the document.

### **Non-Thesis Professional Paper**

Professional papers for non-thesis degrees are typically literature reviews on a topic of interest that has been approved by the student's graduate chair and SAC. The paper should synthesize peer-reviewed literature and other credible sources (e.g., agency reports). The Department Head, who serves as the advisor for non-thesis students, will provide detailed guidance. The process of writing the professional paper should start after the student has completed the first year of coursework.

### **Final Approval of Proposals, Theses, and Dissertations**

Any member of the graduate committee can reject the thesis/dissertation at any stage of the submission and approval process. Rejection of the manuscript can occur for many reasons including (but not limited to)

1. The manuscript does not conform to the required format
2. The manuscript is messy, poorly reproduced, or contains grammatical or spelling errors
3. The manuscript describes scientific data inconsistent with the research project approved in the dissertation proposal
4. The paper contains errors, inappropriate analysis of data, erroneous conclusions, or other scientific inaccuracies
5. The paper contains plagiarized work

After a student has successfully completed the oral defense/final examination and all changes to the thesis/dissertation manuscript that have been requested by the committee, the student will need to have the committee sign the Approval of

Written Thesis form or the Approval of Written Dissertation form via DocuSign system (<https://grad.tamu.edu/buttons/forms-information>). In addition, the student must upload an electronic version of the thesis/dissertation in the format specified by the Thesis Office through the Electronic Thesis Dissertation (ETD) system (<https://etd.tamu.edu/>). Prior to submitting the thesis/dissertation, the Thesis Office recommends that students have a pre-submittal conference to minimize the number of revisions.

## Graduation

The Grad School at TAMU confers graduate degrees for every student in the MARB graduate program at the close of each regular semester and 10-week summer session. Students expecting to complete work at the end of a given semester, must apply for graduation through the Howdy portal by the deadline published each semester in the Grad School calendar (<https://grad.tamu.edu/calendars/>). Final degree audits are done when application is made. Students should notify the Staff Graduate Advisor of the anticipated graduation date. Students graduating are required to conduct an exit interview with the Staff Graduate Advisor.

## Deadlines

MARB faculty members normally serve on several graduate committees, both as advisors and as committee members. Thus, faculty members often have multiple proposals, theses, and dissertations to review each semester, typically near the end of the semester. In addition, the Chair of the MARB Graduate Affairs Committee must review all documents. It is in the best interest of the student to allow adequate time for review of these documents **and adequate time for corrections to be made.**

The Chair of the MARB Graduate Affairs Committee will not accept documents turned in after deadlines. It is in the best interest of the student to allow time after the committee and the MARB Graduate Affairs Committee Chair review to make corrections before the document goes to the Grad School. Students are responsible for tracking the DocuSign forms and making sure that all on the approval list - Staff Graduate Advisor, Chair, and committee members, MARB Graduate Affairs Committee Chair, etc. have received the form. The DocuSign system goes to only one person at a time.

## Registration and Block Removal

Students who fail to submit documents (degree plan, research proposal, etc.) by the deadlines will receive a warning. The warning status is placed for the next long semester when students are required to meet with the Staff Graduate Advisor to discuss progress toward reaching the deadline. Students who are on warning must meet the deadline near the end of the second long semester to avoid a block from future registrations. The block will be removed once the student submits the documents required.

## Important Contacts

MARB Department Head	Dr. Daniel Roelke	<a href="mailto:droelke@tamug.edu">droelke@tamug.edu</a>	(409) 740-4750
MARB Graduate Affairs Committee Chair	Dr. Anja Schulze	<a href="mailto:schulzea@tamug.edu">schulzea@tamug.edu</a>	(409) 740-4540
MARB Staff Graduate Advisor	Holly Richards	<a href="mailto:richardh@tamug.edu">richardh@tamug.edu</a>	(409) 740-4957

## Get Connected

Important information is frequently sent out through email. The RGSO and MARB Department will only send emails to the student's TAMU email address. However, students can link their TAMU email address to another email address using the [gateway.tamu.edu](http://gateway.tamu.edu) system.

