# **GRADUATE**

# **STUDENT**

**HANDBOOK** 

DEPARTMENT OF OCEAN ENGINEERING AND MARINE SCIENCES

Academic Calendar 2023-2024

#### **PREFACE**

The Graduate Student Handbook provides graduate students with information about policies, procedures, and academic activities in the Department of Ocean Engineering and Marine Sciences. Students should use the Handbook as a companion to the University Catalog and the policies and procedures published by the University. This Handbook does not substitute for either. Graduate policies and procedures are available <a href="here">here</a>. The Graduate Student Handbook is available through the OEMS Forms and Documents web page.

Students should read the Handbook and the policies and procedures thoroughly and familiarize themselves with their contents. It is the student's responsibility to be aware of the relevant policies, deadlines, dates, programs, etc. When questions arise, the student should first ask his/her advisor before talking to anyone else.

The Handbook includes a link to Instructions for Preparing a Proposal, Thesis and

### TABLE OF CONTENTS

PREFACE	2
TABLE OF CONTENTS	3
1. QUICK REFERENCE FOR DEPARTMENT POLICIES AND PROCE	DURES5
ACADEMIC DISHONESTY	5
ACADEMIC DISMISSAL, REINSTATEMENT, AND GPA REQUIREM	ENT5
ADMISSION INTO CANDIDACY	5
ADVISOR	5
ADVISORY COMMITTEE	5
ANIMAL CARE/RESEARCH	6
APPEAL OF GRADES	6
CHANGE OF ADVISOR	6
CHANGE OF COMMITTEE.	6
CODE OF CONDUCT	6
COLLECTING PERMITS.	7
COMPREHENSIVE EXAMINATION.	7
DISSERTAION OR THESIS RESEARCH	7
FULL-TIME STATUS	7
GRADES	7
GRADUATE RESEARCH AND SPECIAL TOPICS COURSES	ETEPiC3.838202 792 re
GRADUATE STUDENT ASSOCIATION.	8
GRADUATE STUDENT FORMS	8
LICENSING	8
OWNERSHIP OF RESEARCH DATA	8
PERSONAL PROBLEMS.	8
PROFESSIONAL CONDUCT.	9
PROFESSIONAL SOCIETIES	9
PROGRAM PLAN OR PLAN OF STUDY.	9
DESEADCH NOTEROOK	

2.	DEGREES OFFERED	11
	DEGREES OFFERED.	11
3.	. MASTER OF SCIENCE DEGREES	12
	MASTER OF SCIENCE DEGREES.	12
	Selection of Thesis or Dissertation Advisor.	12
	Program Plan.	12
	Admission to 43.0704 Tf1 0 0 1 143.54 62g0 G[][TETQq.	

#### 1. QUICK REFERENCE FOR DEPARTMENT POLICIES AND PROCEDURES

ACADEMIC DISHONESTY. Academic dishonesty, in any form, is a serious offense and will not be tolerated. Dishonesty includes cheating, plagiarism, deception of effort, and unauthorized assistance. Academic dishonesty may result in a failing grade in a course and/or suspension or dismissal from the Graduate Program and Florida Tech. Falsification of data is an extremely serious offense and can be a ground for immediate dismissal. Plagiarism is discussed separately. University policies on various types of academic dishonesty are available here: <a href="https://www.fit.edu/policies/student-handbook/standards-and-">https://www.fit.edu/policies/student-handbook/standards-and-</a>

ANIMAL CARE/RESEARCH. Animals used in research must receive humane treatment at all times. Animals must be maintained under proper sanitary conditions and be sacrificed according to acceptable procedures. The federal government makes unannounced inspections to enforce compliance with these standards. The Institutional Animal Care and Use Committee (IACUC) must provide written approval prior to the acquisition and use of any live vertebrate animals in either teaching or research laboratories. Discuss this matter with your major professor before you begin research involving <u>any</u> animal. Detailed information, forms, and contact info are available here: <a href="https://www.fit.edu/research/faculty--researchers/compliance/animal-care-and-use/">https://www.fit.edu/research/faculty--researchers/compliance/animal-care-and-use/</a>

APPEAL OF GRADES. All appeals for course grades must adhere to the procedures outlined in the Florida Tech Student Handbook: <a href="https://www.fit.edu/policies/student-handbook/standards-and-policies/right-of-appeal-procedures-grade-appeal/">https://www.fit.edu/policies/student-handbook/standards-and-policies/right-of-appeal-procedures-grade-appeal/</a>

CHANGE OF ADVISOR. There are two primary reasons for changing advisors: 1) change in research interests and 2) personal or professional differences with the advisor. Regardless of the reason, the student should inform and discuss the change with the advisor. The student must also inform their Program Chair and Department Head of the intended change. If the student needs help finding a new advisor, the student should discuss the matter with the Department Head and Program Chair(s). During the interval, the Department Head will take care of routine administrative matters. Changing advisors might involve additional coursework and will likely involve abandoning their original research and starting a new project. The change will usually delay graduation. No faculty member is required to accept a student and serve as their advisor. Failure to find an advisor will result in dismissal from the department's graduate program. If a student's advisor leaves the university, the student does not have to leave the university and will be assigned a new advisor.

CHANGE OF COMMITTEE. Changes to the thesis or dissertation committee, after the proposal has been approved/accepted, are only permitted under extraordinary personal or professional circumstances, as deemed by the Program Chair and Department Head. If personal or professional considerations suggest that such action is in the best interest of the student, the committee members, or the university, any committee member (including the advisor/committee chair) may withdraw from the committee by notifying, in writing, the committee chair, the Department Head, and the Dean of the College. The student will not be permitted to register for more than one additional semester following withdrawal of a committee-member unless a full committee is re-established. To re-establish the committee, the chair nominates a new member in writing to the Program Chair and the Department Head for approval. A memorandum and the appropriate forms are sent by the Department Head to the Dean, who forwards his recommendation to the Office of Graduate Programs.

Replacement of a member of the committee for any reason other than voluntary withdrawal is permitted after review and approval by the Program Chair and the Department Head of a written request from the student and/or the advisor for such action. Such requests are forwarded by the Department Head and follow the same approval route as voluntary withdrawals. Forced replacement of a committee member is allowable only in cases of personal, non-academic incompatibility.

COLLECTING PERMITS. Rapid development in Florida has placed heavy demands on its natural resources. Research requiring collection of organisms and environmental sampling should be designed to minimize collection impact as reasonably as is possible, and samples should be processed carefully and adequately to prevent waste. All collections must be made in accordance with legal requirements, including applicable permits and licenses.

COMPREHENSIVE EXAMINATION. The comprehensive examination consists of a written exam administered to <u>doctoral students</u> by the end of their second year. The student is required to answer two questions, which are prepared and graded by an examination committee. The examination committee is comprised of the student's dissertation committee. The Program Chair administers the exam on behalf of the committee. In cases where the Program Chair is a member of the committee, an alternate, non-member of the committee will be designated. The Department Head is the final approver for all comprehensive exams in the department.

DISSERTAION OR THESIS RESEARCH. Only MS or PhD students whose research proposals have been accepted are allowed to register for thesis (MS) or dissertation (PhD) research. The requirements for admission to candidacy are program and degree specific and you are responsible for meeting these requirements. Students who are approved for thesis or dissertation work must continuously register for 3 semester-hours of MAR/ENS/OCE/OCN 5999 (thesis) or 6999 (dissertation) as appropriate. This includes summer. Any exception requires a "Request to Waive Dissertation or Thesis Registration" form and approval of the Program Chair and the Department Head. An example of this would be if the student were going to be away from campus during the summer and not using any Florida Tech facilities or faculty time.

Thesis or Dissertation registration in the semester of graduation may be for less than 3 hours if the minimum required total number of credits specified for the degree has been met and a full-three-hour registration was completed for the preceding semester. Students who receive a waiver of the requirement to register for the preceding semester, or who did not pass the oral defense of the dissertation during the preceding semester, must register for at least one hour in the semester of graduation, even if they finish prior to the end of the fourth week of the semester. For specific and current details on this policy see: <a href="https://www.fit.edu/office-of-graduate-programs/thesis-and-dissertation-process/">https://www.fit.edu/office-of-graduate-programs/thesis-and-dissertation-process/</a>

FULL-TIME STATUS. Eligibility for scholarships and student loans often requires the recipient to /Span <</MC

GRADUATE RESEARCH AND SPECIAL TOPICS COURSES. Graduate courses: MAR 5995 as well as ENS, OCE, and OCN5901-5903 consist of the development, execution, documentation and evaluation of an original research project on which the student and the faculty member agree, with input from the graduate student's committee, as appropriate. The grade for the course will be based on an evaluation of the student comprehension of the research topic and performance of the research, as evidenced by their committee meeting.

GRADUATE STUDENT ASSOCIATION. All students working toward the M.S. or Ph.D. degrees in the Department of Ocean Engineering and Marine Sciences are members of the Graduate Student Association (GSA). Regular meeting attendance and participation in GSA-sponsored events is encouraged and expected of all graduate students. The primary functions of the GSA are to organize and sponsor a seminar or workshop series on various topics selected by graduate students; to facilitate communication among graduate students, faculty, and administration; to provide information and tours to prospective or incoming students in the Department of Ocean Engineering and Marine Sciences; and to provide a forum where proposals, seminars, and research ideas may be presented and discussed.

GRADUATE STUDENT FORMS. Graduate students must complete all appropriate forms to document their progress in the program. These are intended to assist the student in a smooth and timely manner through required coursework and research responsibilities. Progress forms are available at: <a href="https://www.fit.edu/office-of-graduate-programs/forms-and-documents/">https://www.fit.edu/office-of-graduate-programs/forms-and-documents/</a>

Within the first two weeks of their first semester students should have downloaded the MS or PhD checklist forms as well as completed their Program Plan (MS) or Plan of Study (PhD) forms. By the end of the second semester of their first year, both MS and PhD students should submit the form for the formation of their committee and have their first committee meeting.

LICENSING. For reasons of health, safety, and professional standards, many local, state, and federal agencies and professional societies require licensing for alcohol (Bureau of Alcohol, Tobacco and Firearms), drugs (Drug Enforcement Agency), radioactive isotopes (Nuclear Regulatory Commission and Health and Rehabilitative Services), animal care (U.S. Department of Agriculture and National Institutes of Health), and endangered species (Florida Fish and Wildlife Conservation Commission and U.S. Wildlife Service). Check with your advisor to determine whether you need to be licensed to conduct your research. Failure to comply can result in loss of license for the department or entire university. In addition, the violator (student or faculty member) may be fined, imprisoned, and/or dismissed from the university (see Professional Conduct).

OWNERSHIP OF RESEARCH DATA. All data collected for the graduate degree are the property of the Florida Institute of Technology and are administered by the student's advisor on behalf of the University. The student will not graduate until all data have been turned over to the advisor. The student may not present the data at any conference or meeting, nor publish them in any form before or after graduation without the express consent of the advisor.

PERSONAL PROBLEMS. The pressures of graduate school, as well as personal or financial problems can significantly impact student health and success. Sometimes, certain matters cannot be comfortably discussed with other students, friends, or the advisor. Whatever the reason, the student is urged to avail themselves of the free services offered by the university. Contact info:

Student Counseling Center (321-674-8050) <a href="https://www.fit.edu/student-counseling-center/">https://www.fit.edu/student-counseling-center/</a> Catholic Campus Ministry (321-674-8045) <a href="https://www.fit.edu/ccm/">https://www.fit.edu/ccm/</a>

TEACHING ASSISTANTSHIPS (TA).

#### 2. DEGREES OFFERED

DEGREES OFFERED. There are several graduate degrees offered through the Department of Ocean Engineering and Marine Sciences: the Ph.D. and M.S. in Biological Sciences, the M.S. in Conservation Technology, the M.S. in Earth Remote Sensing, the M.S. in Environmental Resource Management, the M.S. and Ph.D. in Environmental Science, the M.S. in Meteorology, the M.S. and Ph.D. in Ocean Engineering, and the M.S. and Ph.D. in Oceanography. Both the Ph.D. and M.S. in Biological Sciences require the preparation and defense of a the

#### 3. MASTER OF SCIENCE DEGREES

MASTER OF SCIENCE DEGREES. The thesis MS degrees in OEMS require the successful completion of at least 30 semester-hours of graduate credit, which must be approved by the student's advisor and program chair, prior to the start of classes. This total may include up to 6 hours of approved 4000-level undergraduate coursework. *TheOSdent must completeOSup to 6 hours of Thesis* (MAR/ENS/OCE/OCN 5999). Once started, continuous enrollment in 3 semester-hours of thesis is required until all requirements for the degree are satisfied, but only 6 semester-hours may be applied to the degree. For additional information refer to the graduate programs website: https://www.fit.edu/office-of-graduate-programs/thesis-and-dissertation-process/

<u>Selection of Thesis or Dissertation Advisor.</u> The thesis or dissertation advisor must be a member of the Graduate Faculty; students may do their research with Associate Graduate Faculty in the Department under the supervision of a member of the Graduate Faculty. New graduate students must have selected or been assigned an advisor and been accepted into a laboratory before coming to Florida Tech. Only students with advisors are permitted to register for courses. The thesis/dissertation advisor serves as the chair of the thesis/dissertation committee.

Program Plan. The student and his/her thesis/dissertation advisor construct and submit a Program Plan to the Program Chair for review and approval. The Program Plan includes the name of the advisor and a list of all courses to be counted toward the M.S./Ph.D. (the form is <a href="here">here</a>). Each graduate student is required to have an approved program plan on file no later than one month prior to completion of nine credit-hours of graduate coursework. Failure to submit the program plan on time will result in a "hold" being place0 -39(o)-9(n)-39(the)-37(student's)-41(r)-6(e)4(gist)-4(ra)7(ti)-1000 places.

faculty of the Ocean Engineering and Marine Sciences Department (of which at least one must be a full-time faculty member) and one a full-time graduate faculty member from another degree-granting department. Associate Graduate Faculty from the Florida Fish and Wildlife Conservation Commission, Harbor Branch Oceanographic Institution, and the Smithsonian Marine Station at Fort Pierce can serve as members but not chairs of committees. As members of the Department of Ocean Engineering and Marine Sciences, Associate Graduate Faculty cannot serve as outside members. Students should complete and submit Progress Form "II. Formation of Thesis or Dissertation Committee" (see Appendix A).

<u>Thesis Research Proposal.</u> The thesis proposal serves the purpose of explaining the intended research in detail for the thesis advisor and thesis committee to ensure that the proposed research

frequency and format of such meetings.

Students who are engaged in thesis work must continuously register for 3 semester-hours of MAR/ENS/OCE/OCN 5999 each semester until graduation. For each thesis course, the student will receive a grade of either S (satisfactory progress) or a U (unsatisfactory progress). U grades will not be changed and will remain on the transcript, but they will not be used in computing the student's cumulative grade point average. When the thesis is accepted, 6 credits of "S" grades will be assigned P (Pass) as determined by the unanimous approval of the thesis committee.

<u>Thesis Preparation</u>. Great care should be taken in the preparation of the thesis. The writing should be clear and grammatically correct. Methods, results, and conclusions should be described thoroughly. Data should be analyzed carefully as to significance. The thesis should be written on a computer/word processor and printed with a laser printer or other high-quality printer.

Preliminary copies of the thesis should be submitted to the committee at least four weeks

Department Head should receive the thesis at least three days before the end of the semester. The Department Head then submits the Master's Examination Report to the Graduate Programs Office, notifying them of the successful completion of the exam and that all degree requirements have

### Format for the written report:

- Introduction
  - o Background/purpose/concepts/objecti0470i0470i0470i0470i0W \$% the wfit

#### 5. DOCTOR OF PHILOSOPHY

SUMMARY The purpose of the Ph.D. program is to train students for careers in research and teaching at the highest levels. Demonstration that the candidate has achieved the appropriate level of knowledge is the submission of a dissertation, which should be a major contribution in the field. The dissertation must indicate not only that the individual has a mature understanding of the particular field but also that they can design and execute original studies.

The Department of Ocean Engineering and Marine Sciences offers opportunities for advanced study and research leading to the Doctor of Philosophy degrees in Biological Sciences, Environmental Science, Oceanography, and Ocean Engineering. The Ph.D. degree is awarded to candidates who have 1) displayed an in-depth understanding of the subject matter and 2) demonstrated the ability to make an original contribution to knowledge in their fields of specialty.

Course Requirements. The doctoral degree requirements, which vary depending on the program,

<u>Dissertation of Committee Structure.</u> The committee consists of four graduate faculty. Three must be from within the student's department, with at least two of the three being full-time

OEMS Office. The examination committee is comprised of the student's doctoral committee. <u>Comprehensive Examination (Administration)</u>. The appropriate program chair, administers the examination. The responsibility of the administrator will be as follows.

- 1) Coordinate with the examination committee to administer the examination.
- 2) Collect the questions from the committee chair and furnish them to the student.
- 3) Collect the graded exams from the faculty and ensure that a written evaluation accompanies each graded examination.
- 4) Submit Student's exam and faculty comments to the Department head for approval.
- 5) Pending approval, file an examination report with the Department Head.
- 6) Notify the student and advisor, in writing, of the results of the examination (<2 weeks)

Comprehensive Examination (Structure). Students will be given two questions, which are developed by the student's doctoral committee. Input may also be solicited from other Ocean Engineering and Marine Sciences faculty. One of the questions should be designed to test core knowledge within the student's general area of study while the other should address a topic within the student's specific field of interest. The questions may have multiple parts. The student may have, at most, two weeks to write answers to the questions. Each question will be graded by the members of the doctoral committee. To pass, the student must have the unanimous approval of the committee, including the outside member (see Graduate Policy 2.4.3). If the student fails, s/he can retake the examination the following semester. Students will be advised following a failure to help

submit Progress Form III to the Program Chair.

Admission to Candidacy for the PhD. Once the dissertation proposal is approved, the student applies for admission to candidacy for the doctoral degree. The advisor must complete Progress Form "IV. Admission to Candidacy" and send it to the Program Chair for approval. A cumulative GPA of 3.2 is required for admission to candidacy. After admission to candidacy, students must registertifare MAR/E/NS/OCIVIA/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Continues/IS/CALOIR/CEd6999a/Dissertation/le/Caloir/CEd6999a/Dissertation/le/Caloir/CEd6999a/Dissertation/le/Caloir/CEd6999a/Dissertation/le/Caloir/CEd6999a/Dissertation/le/Caloir/CEd6999a/Dissertation/le/Caloir/CEd6999a/Dissertation/le/Caloir/CEd6999a/Dissertation/le/Caloir/CEd6999a/Dissertation/le/Caloir/CEd6999a/Dissertation/le/Caloir/CEd6999a/CEd6999a/CEd6999a/CEd6999a/CEd6999a/CEd6999a/CEd6999a/CEd6999a/CEd6999a/CEd6999a/CEd6999a/CEd6999a/CEd69a/CEd69a/CEd69a/CEd69a/CEd69a/CEd69a/CEd69a/CEd69a/CEd69a/CEd69a/CEd69a/CEd69a/CEd69a/CEd

ation Research. The doctoral research should represent a significant contribution to edge in the field and should be of such quality that it will be acceptable for publication in a lor international, peer-reviewed scientific journal. During the period of dissertation h, the student should meet frequently with the dissertation advisor to discuss dissertation ss. A meeting with the doctoral committee is required at least once per semester, after which

I students are expected to make reasonable progress toward the degree. Once a student has mit00000912 reWhalmonce s.321(e)4)d has yecrin which Whalmoncomplete the researc,reW(de)4(f)-0

insheyo (c)4(c)4duethe (t -52[e)4((a)4(ti)-3((a)4(ti)-3(o,( )3992 47(s)-10( )399w.321(e)4ill)-3( )3992 47(g )

The final examination for the Doctor of Philosophy degree consists of two parts: a seminar and a final oral exam, or dissertation defense. The first is a public seminar that is open to all faculty and students. The departmental seminar coordinator posts notices of the seminar. At the seminar, the student presents the research and fields questions and comments from the audience. The second part of the examination, the defense, takes place <u>after</u> the seminar. The student meets privately with the committee and any graduate faculty who wish to attend. The student takes questions, comments, and suggestions on the research that the faculty may have. Once the dissertation is unanimously approved by the committee, the advisor notifies the Program Chair and the Graduate Programs Office of the successful completion of the exam and that all degree requirements have been met. <u>Students are not permitted to handle the forms associated with the completion of the dissertation.</u>

<u>Recommended Sequence of Events for Completion of PhD Requirements.</u> The following list summarizes the landmarks of progress that should be followed as closely as possible.

- 1) Select advisor and gain acceptance into a laboratory.
- 2) Arrive at Florida Tech.
- 3) Meet with advisor for preliminary conference, selection of courses for first semester of study, and completion of Program Plan.
- 4) Submit a Program Plan to the PROGRAM CHAIR for review and approval.
- 5) Select dissertation committee in consultation with advisor. By the end of the first yearf
- 6) Complete majority of coursework
- 7) Schedule, take, and pass a written comprehensive examination, administered by the PROGRAM CHAIR.
- 8) Prepare and defend dissertation proposal.
- 9) Complete Progress Form "Admission to Candidacy" and submit to PROGRAM CHAIR for approval.
- 10) Complete coursework.
- 11) Complete dissertation research.
- 12) Write dissertation.
- 13) Submit dissertation to committee with advisor's approval.
- 14) Schedule final examination at least four weeks after submitting dissertation to committee.
- 15) Notify Graduate School of the exam-date two weeks in advance.

- 16) Hold seminar and complete dissertation defense.
- 17) Make any edits suggested by the committee.
- 18) Submit an electronic copy of their dissertation to the Library and a copy of the document to the Office of Graduate Programs. (Note that for a complete set of instructions on thesis/dissertation format and deposition as well as other specifics see <a href="https://dissertation.org/">Thesis and Dissertation Process</a>.)