MARINE AND ATMOSPHERIC SCIENCE

Introduction
The Rosenstiel School of Marine and Atmospheric Science was established in 1943 as the Marine Laboratory of the University of Miami. It has grown from its modest beginnings in a boathouse to be one of the nation’s leading institutions for oceanographic and atmospheric research and education.

Originally a tropical marine biological facility, the Marine Laboratory initiated a program of studies leading to the Master of Science degree in 1949. In 1953, laboratory and classroom buildings were constructed on the School’s present campus on Virginia Key, and in the late fifties, the Marine Laboratory expanded its staff and developed its oceanographic capabilities in response to the increased interest in scientific research in the United States. It became the Institute of Marine Science in 1961. Ocean-going research vessels were acquired, and additional buildings were constructed to accommodate new wide-ranging projects. In 1969 the Institute, now a School, was named for Dorothy H. and Lewis Rosenstiel in recognition of a major contribution made through the Rosenstiel Foundation to encourage progress in the marine and atmospheric sciences at the University of Miami. In 1977, the School and College of Arts and Sciences joined together to establish an undergraduate Marine and Atmospheric Science program based on the Coral Gables campus. The degree granting authority for this program was formally transferred to the Rosenstiel School in 2008.

Today the Rosenstiel School has a faculty of 70 scientists who conduct sponsored research while offering graduate studies leading to the Master of Professional Science Program, Master of Science and Doctor of Philosophy degrees. The School offers curricula in applied marine physics, marine and atmospheric chemistry, marine affairs and policy, marine biology and fisheries, marine geology and geophysics, meteorology and physical oceanography, and ocean sciences. The School also offers undergraduate programs leading to the Bachelor of Science in Marine and Atmospheric Science degree.

The Rosenstiel School uses multiple laboratory and high-performance computing facilities and a state-of-the-art catamaran.

The brand new Marine Technology and Life Sciences Seawater Complex (MTLSSC), opened in 2014, houses studies that rely on seawater for observing air-sea interactions in a controlled environment and for holding, spawning and rearing marine organisms. This complex is the centerpiece of an updated Rosenstiel School campus.

The catamaran, named the F. G. WALTON SMITH, in honor of the founder of the Rosenstiel School has been in service since 2000. The 96-foot-long catamaran is able to explore the deep ocean as well as normally inaccessible shallow environments such as reefs, mangroves and grassbeds.

Degree Programs
The Rosenstiel School is made up of seven academic programs. These are:

- Applied Marine Physics
- Marine and Atmospheric Chemistry
- Marine Affairs and Policy
- Marine Biology and Fisheries
- Marine Geology and Geophysics
- Meteorology and Physical Oceanography
- Ocean Sciences

Please note the Rosenstiel School is currently restructuring all graduate programs to provide broader opportunities and greater flexibility to our students. The new and restructured graduate programs will be effective Spring 2016. Please visit www.rsmas.miami.edu for more details.

The Rosenstiel School of Marine and Atmospheric Science offers three graduate degree programs leading to the Master of Professional Science (M.P.S.), Master of Science (M.S.), and Doctor of Philosophy (Ph.D.) degrees. M.S./Ph.D. students can pursue degrees in applied marine physics, marine and atmospheric chemistry, marine biology and fisheries, marine geology and geophysics, meteorology and physical oceanography, and ocean sciences. M.P.S. students can enroll in degree tracks in marine affairs and policy, marine biology and fisheries, meteorology and physical oceanography, and ocean sciences. The division of Marine Affairs and Policy offers interdisciplinary Master of Professional Science and Master of Science degrees only.

In conjunction with the University of Miami School of Law, the Division of Marine Affairs and Policy at the Rosenstiel School also offers a joint degree program in Law and Marine Affairs. Upon completion of this program, a student earns a Juris Doctor degree from the School of Law and a Master of Professional Science in Marine Affairs and Policy from Rosenstiel.

Admission requirements and undergraduate preparation recommendations are both available at www.rsmas.miami.edu.

Degree Requirements
The Master of Professional Science (MPS) Program
The Master of Professional Science (M.P.S.) degree is offered in the disciplines of Marine Affairs and Policy (Aquaculture Management, Coastal Zone Management, Coastal Sustainability, Exploration Science, Marine Conservation, and Underwater Archaeology), Marine Biology and Fisheries (Fisheries Management and Conservation, Marine Mammal Science, Tropical Marine Ecosystem Management, and Oceans and Human Health), Meteorology and Physical Oceanography (Broadcast Meteorology, Computational Meteorology and Oceanography, Weather, Climate and Society, and Weather Forecasting), and Ocean Sciences (Applied Remote Sensing and Natural Hazard and Catastrophes). It is expected that the normal time for completion of degree requirements for the Master of Professional Science degree will be ~ 15 months of full-time study.

Credit Hour Requirements
Students in the Master of Professional Science Program are required to complete 24 course credit hours and 6 internship credit hours. Within each track, there are compulsory classes and electives. Coursework is multidisciplinary and thus will be accepted from multiple departments. As the terminal part of the degree, students must complete an internship
with an approved agency, institution, or business, culminating in a final report.

Comprehensive Examination
A comprehensive examination is required of all M.P.S. students after completing at least 18 course credit hours and prior to beginning an internship. In most cases, the exam will be written and will be based on M.P.S. coursework or the common body of knowledge relevant to each track. However, each division determines the content and form of the examination and establishes the test date for its students in a given year-class according to general school guidelines. In the event of a failure, a student may be re-examined once, upon the advice of the student’s advisor and at the discretion of the faculty of the division. If granted, the re-examination must be given before the end of the following semester. The Graduate Studies Office should receive written notification of the examination results. Students who fail the re-examination are subject to dismissal from the school.

Internship
Each student will be required to complete an internship with an organization engaged in some activity associated with marine and atmospheric science and identify an Internship Supervisor. Internships can be either paid or unpaid by the organization, or students can complete the internship by formal participation in a University sponsored program. An internship proposal, including contact information for the Internship Supervisor, must be submitted to the academic advisor and mentor for approval before the internship can begin.

Internship Report and Oral Presentation
The final grade will be based on a written report and an oral presentation. The internship report is not a summary of involvement but rather a contributory assessment of the experience, including developmental insight and a summary of any research performed. Internship report guidelines will be provided.

Conference Attendance
Though not mandatory, M.P.S. students are strongly encouraged to attend a scientific conference during their academic residency at RSMAS.

The M.S. Program
The Master of Science degree is offered in the disciplines of applied marine physics, marine biology and fisheries, marine and atmospheric science, marine geology and geophysics, or meteorology and physical oceanography. It is expected that the normal time for completion of degree requirements for the Masters of Science degree will be two years of full-time study.

Credit Hour Requirements
24 graduate course credit hours are required for the Master of Science degree. In addition, the student must enroll for a total of 6 credit hours of thesis research (710). All students are required to take at least one course outside the division of residence.

Comprehensive Examination
A comprehensive examination is required of all students. Each division determines the content and form of the examination and establishes a test date for its students according to general School guidelines. In the event of a failure, a student may be reexamined once, upon the advice of the student’s committee and at the discretion of the faculty of the Division. If granted, the reexamination must be given before the end of the following semester. Students who fail the re-examination are subject to dismissal from the School.

Thesis
A thesis is normally required for the Master of Science degree in marine and atmospheric science. A public oral defense of the thesis must take place. The thesis committee must consist of at least three members, one of whom is a regular member of the Graduate Faculty of the University; one member must be from outside the division.

The PH.D. Program
The Doctor of Philosophy degree is offered in applied marine physics, marine biology and fisheries, marine and atmospheric science. A public oral defense of the thesis must take place. The thesis committee must consist of at least three members, one of whom is a regular member of the Graduate Faculty of the University; one member must be from outside the division.

Credit Hour Requirements
A total of 60 credit hours are required for the Ph.D. and not less than half of the total credit hours must be in work open only to graduate students (i.e. 600 level or above). At least 24 of the 60 credit hours must be course credit hours taken in residence at the University of Miami, and may include those course credit hours taken as part of the M.S. degree. A minimum of 12 dissertation research credit hours must be taken; however, the course credit hour and research credit hour requirements needed are determined by the individual division. Students transferring into the school with a Master’s of Science degree are normally given credit hour for 24 course credit hours. However, individual divisions may require additional course credit hours to remove deficiencies. All students entering the Ph.D. program without a master’s degree are required to take at least one course outside the division of residence.

Dissertation Committee
The dissertation committee must consist of at least four members; this includes the committee chair, who shall be a member of the division or share the chair duties with a co-chair from the committee and be a regular member of the Graduate Faculty. Of the remaining members, two shall be from the Graduate Faculty, and one member of each Ph.D. committee must have their primary affiliation outside of RSMAS and that member must also have a Ph.D. degree. (Adjunct and secondary appointments are considered outside if their primary affiliation is not RSMAS).

Comprehensive Examination
A comprehensive examination, oral, written or both, is required of all RSMAS students. In the event of a failure, a student may be re-examined once, upon the advice of the student’s committee and at the discretion of the faculty of the division. Students who fail the re-examination are subject to dismissal from the School.

Qualifying Examination
A written qualifying examination is required of all students admitted to the doctoral program. The student’s committee will normally prepare and administer the examination within the guidelines established by the faculty of the School and of each division. In the event of a failure, a student may be reexamined once, upon the recommendation of the student’s committee and at the discretion of the faculty of the division. If granted, the reexamination must be given before the end of the following
semester. Language and other research tools requirements, if applicable, must be completed prior to taking the qualifying examination. Students who fail the re-examination are subject to dismissal from the School.

Dissertation Proposal
An outline of the dissertation containing the following must be approved by the student’s committee and submitted to the RSMAS Graduate Studies Office with a copy to the division academic committee:

1. tentative title
2. statement of the problem and objectives
3. methods of attacking the problem, including equipment and facilities required
4. timetable

A “Proposal Approval” form must accompany the proposal and be signed by the members of the student’s committee.

Admission to Candidacy
Upon completion of the following requirements, the student is admitted to candidacy:

1. have an approved committee on file in Graduate Studies
2. successfully pass the comprehensive examination
3. successfully pass the qualifying examination
4. complete the language requirement, if any
5. submit the dissertation proposal
6. have a 3.0 average in all credit hours earned (≥ 12 credit hours)
7. remove all “I” or deficiencies

An application for Admission to Candidacy must be completed. All doctoral students must be admitted to candidacy at least one semester prior to the one they intend to graduate.

Dissertation
A dissertation is required of all doctoral students at the Rosenstiel School. A public oral defense of the dissertation is required. A student must be admitted to candidacy prior to the defense and registered in the semester that he/she defends. Each dissertation must be accompanied by three originals of the Certificate of Approval. This form must be signed by all members of the student’s committee and the RSMAS Associate Dean of Graduate Studies.

No student gains the right to be recommended for the degree simply by fulfilling requirements. The right to recommend to the degree is reserved for the student’s Committee. Any student who fails to meet the cumulative grade point average requirement and other academic progress standards established by the University and the School is subject to dismissal from the graduate program.