

COLLEGE OF MARINE SCIENCE



Changes to Note

College of Marine Science

There were no curricular changes to the College of Marine Science programs for the 2011-2012 Graduate Catalog.

University of South Florida
College of Marine Science
140 7th Avenue S, MSL119
St. Petersburg, FL 33701

Web address: <http://www.marine.usf.edu/>
Email: advisor@marine.usf.edu
Phone: 727-553-1130
Fax: 727-553-1189

Interim College Dean: William T. Hogarth
Associate Dean: n/a
Graduate Coordinator: Ted Van Vleet

Accreditation:

The Commission on Colleges of the Southern Association of College and Schools

Mission Statement:

The College of Marine Science (CMS) was formed during 2000 from the previous Department of Marine Science, initiated in 1967 with three founding faculty members. The Florida Board of Regents declared it a University Center of Excellence in 1978 and approved the Marine Science Ph.D. program in 1982. Staff and faculty serve students on the St. Petersburg campus, Tampa, and the other regional campuses together with their surrounding communities, espousing goals of both diversity and equal opportunity. The CMS at the University of South Florida is constituted as a graduate-level research program that forms the basis for educational opportunities at the Ph.D. and M.S. degree levels and for public service to the State of Florida. The College administratively reports to the Provost of USF.

Mission

The primary mission of the College is to conduct basic and applied research in ocean science. Here, ocean science is defined by application of the traditional fields of science to both the biology, chemistry, geology, and physics of the marine environment and to the interactions between the marine environment and the adjoining atmosphere and land systems – presently and throughout earth’s history. Included in the primary ocean science mission is the development of new technologies and tools for exploring the coupled ocean-atmosphere-land systems. The College expects its faculty to develop research programs of outstanding caliber and to fully engage the national and international scientific communities, through the reporting of research results in the most respected oral and written venues, and by professional service. Integral to the ocean science research mission is the education of graduate students.

The College recruits, trains, and graduates productive, creative scientists at the Ph.D. and M.S. levels that are prepared to make independent contributions to ocean science. The faculty are expected to develop outstanding graduate education programs that will afford students the opportunity to participate in all aspects of research. The College recognizes that graduate education requires strong mentoring along with traditional classroom instruction. An ancillary but important mission of the College is education outreach for students at all levels and for the public at large. Our outreach programs have significantly expanded our educational responsibilities, and they are intended to motivate all generations to become scientifically literate citizens and to understand the environment in which they live. The College pursues innovative avenues for educational outreach. Efforts are made to attract more junior and senior level undergraduates into both the ocean science core courses and into advanced courses for which they have pre-requisites. Historically, this is a way in which students have made career decisions to engage in ocean science. In this manner the College maintains close ties with the student body in other University of South Florida Colleges and campuses.

The College of Marine Science's specialized laboratories include those for trace metal analysis, water quality, organic and isotope geochemistry, physical chemistry, optical oceanography, satellite imagery, sedimentology, geophysics, physical oceanography, micropaleontology, physiology, benthic ecology, microbiology, planktology, and ichthyology. The College has a large flume facility and laser Doppler velocimeter for interdisciplinary boundary layer studies. It is often the case that a student's research is primarily conducted at sea. Bayboro Harbor can accommodate any ship in the fleet of the U.S. oceanographic vessels, and is home-port to the principal vessels operated by the Florida Institute of Oceanography for the entire State University System. Marine science students frequently participate in Gulf of Mexico cruises on either of two FIO vessels, the R/V Suncoaster (110ft) and the R/V Bellows (71ft). Ship time on other vessels in the U.S. fleet of oceanographic vessels, as well as foreign research vessels, is generally obtained through federal funding. Over the past decade, the College's students and faculty have conducted research in the Antarctic, Atlantic, Indian, and Pacific Oceans, as well as the Norwegian, Bering, Mediterranean and Caribbean Seas.

Major Research Areas: Refer to College Information above.

Types of Degrees Offered:

Master of Science (M.S.)
Doctor of Philosophy (Ph.D.)

Name of Programs Offered:

Master of Science M.S.
Marine Science

Doctor of Philosophy Ph.D.
Marine Science

Concentrations:

Biological Oceanography (M.S., Ph.D.)
Chemical Oceanography (M.S., Ph.D.)
Geological Oceanography (M.S., Ph.D.)
Interdisciplinary (M.S., Ph.D.)
Marine Resource Assessment (M.S., Ph.D.)
Physical Oceanography (M.S., Ph.D.)

Graduate Certificates Offered: n/a

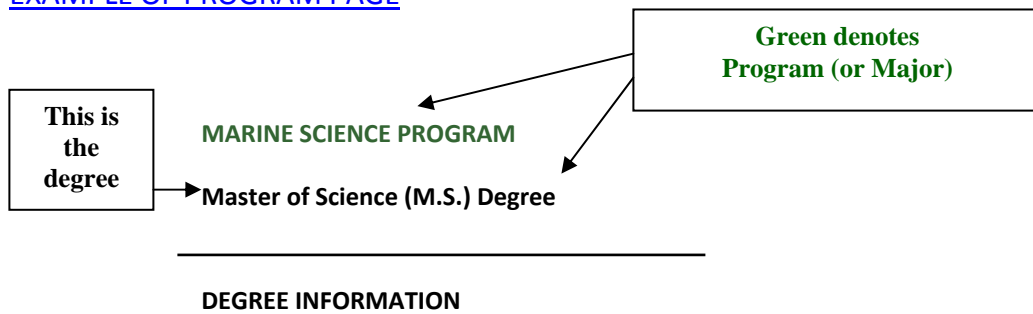
COLLEGE REQUIREMENTS

Refer to College website for information.

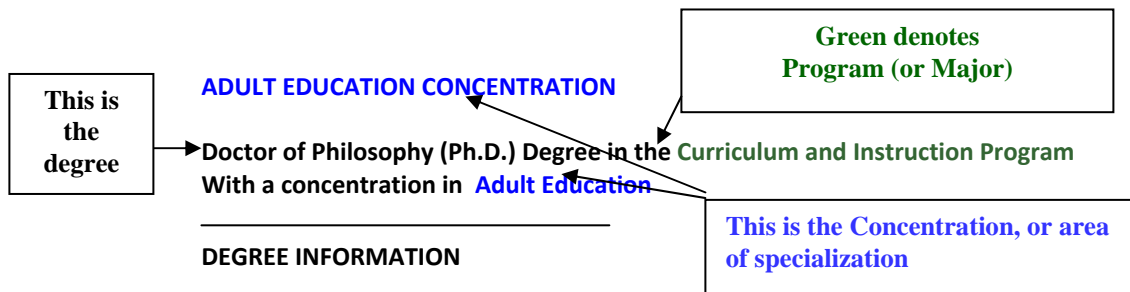
About the Catalog

The University of South Florida Graduate Catalog is organized with the degree programs offered listed in the section of the college that offers them. For example, the Master of Science degree with a “program” (also known as major) in Biology is listed in the College of Arts and Sciences section. Some colleges offer areas of specialization, or “concentrations” within a degree program.

EXAMPLE OF PROGRAM PAGE



EXAMPLE OF CONCENTRATION PAGE



The name of the program and/or concentration does not appear on the diploma – only the name of the degree (i.e., Master of Arts) is listed. The program and concentration information is listed on the official transcript. Other areas, such as application track, are not listed on the transcript.

MARINE SCIENCE PROGRAM

Master of Science (M.S.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

U.S. Citizens

Fall:	January 15
Spring:	October 1

International Students

(not currently residing in U.S.):

Fall:	January 2
Spring:	June 1

International Students

(currently residing in U.S.):

Refer to U.S. Citizens deadlines

Minimum Total Hours:	32
Program Level:	Masters
CIP Code:	40.0607
Dept Code:	MSC
Program (Major/College):	MSC MS

Concentrations:

- Biological Oceanography (BOC)
- Chemical Oceanography (COB)
- Geological Oceanography (GOG)
- Interdisciplinary (IDY)
- Marine Resource Assessment (MRA)
- Physical Oceanography (POG)

CONTACT INFORMATION

College: Marine Science

Contact Information: www.grad.usf.edu

Other Resources: www.usf4you

PROGRAM INFORMATION

The College of Marine Science (CMS) offers M.S. and Ph.D. degrees in Marine Science. The student may emphasize biological, chemical, geological, or physical oceanography, or develop an interdisciplinary program in oceanography through course work and thesis or dissertation research. More than 100 students are currently pursuing degrees under the direction of 30 full-time faculty. Study areas range from estuarine and near-shore systems to remote areas of the Pacific, Atlantic and Indian Oceans, as well as the Arctic and Antarctic. Additional information on faculty research and college facilities is available from the College upon request.

The College's location on St. Petersburg's Bayboro Campus allows immediate access to Tampa Bay and the Gulf of Mexico. Bayboro Harbor is home-port to the R/V Bellows (71 ft.) and the R/V Suncoaster (110 ft.) operated by the Florida Institute of Oceanography (FIO) for the State University System. The College's principal building is shared with FIO and is adjacent to the Fish and Wildlife Research Institute (FWRI), the research arm of the Florida Fish and Wildlife Conservation Commission (FWCC). A recently completed research building shared by CMS and FWCC houses a remote sensing, satellite data-acquisition center. With the Center for Coastal Geology and Regional Studies of the U.S. Geological Survey and the office of the Tampa Bay National Estuary Program also at Bayboro, our campus has one of the largest concentrations of marine scientists in the southeastern United States. Many of these scientists serve on advisory committees of CMS graduate students.

Accreditation:

Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Bachelor's degree or equivalent from a regionally accredited university (Preferable majors include biology, chemistry, geology, physics or math)
- Have earned a "B" (3.0 on a 4.0 scale) average or better in all work attempted while registered as an upper division student working for a baccalaureate degree
- Have completed all of the coursework listed on our website (<http://www.marine.usf.edu>) under "Undergraduate Preparation"
- Have taken the Graduate Record Examination (GRE) within 5 years preceding application. The scores generally considered acceptable by the College are as follows: Verbal = 500, Quantitative = 600
- Have the commitment of a Marine Science faculty member to serve as advisor during the student's graduate studies.

Contact Program for additional information and requirements (e.g., Research Interest Statement, Letters of Recommendation, etc.). (<http://www.marine.usf.edu/graduate-programs/applications.shtml>)

DEGREE PROGRAM REQUIREMENTS

A committee, consisting of a major advisor and at least 2 other members of the graduate faculty, will be appointed to supervise and guide the program of each student.

Total Minimum Hours: 32 hours

Students must complete a minimum of 32 credits under the following areas:

1. CORE REQUIREMENTS (12 hours)

Core courses completed with a grade of "B" or better:

- | | | | |
|----|----------|-------------------------|-----|
| a. | OCB 6050 | Biological Oceanography | (3) |
| b. | OCC 6050 | Chemical Oceanography | (3) |
| c. | OCG 6051 | Geological Oceanography | (3) |
| d. | OCP 6050 | Physical Oceanography | (3) |

2. CONCENTRATION REQUIREMENTS (14 credit hours)

Students select one of the following concentrations and complete 14 hours of electives within the concentration subject area (or other courses as approved by the Graduate Program Director). *Note: 8 of these credit hours must be in formal courses to satisfy the USF requirement of 20 hours of formal coursework:*

Biological Oceanography (BOC)
 Chemical Oceanography (COB)
 Geological Oceanography (GOG)
 Interdisciplinary (IDY)
 Marine Resource Assessment (MRA)
 Physical Oceanography (POG)

Students in Marine Resource Assessment Concentration area are required to take 3 courses from the following list (totaling 9 credit hours):

- | | | |
|----|---------------------|-----|
| a. | Population Dynamics | (3) |
| b. | Fish Biology | (3) |

- c. Dynamics of Marine Ecosystems (3)
- d. Applied Multivariate Statistics (3)

3. ELECTIVE REQUIREMENTS (5 hours)

Electives are taken within each concentration area (see above)

4. COMPREHENSIVE EXAM REQUIREMENTS

Students must pass a final oral examination conducted by members of the student's advisory committee.

5. THESIS REQUIREMENTS (6 hours)

Six (6) credits of OCE 6971

Students must complete a thesis conducted by members of the student's advisory committee.

6. OTHER REQUIREMENTS

Other coursework as required by thesis advisory committee

COURSES

See <http://www.ugs.usf.edu/sab/sabs.cfm>

MARINE SCIENCE PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

U.S. Citizens:
Fall: January 15

Spring: October 1

International Students

(not currently residing in U.S.):

Fall: January 2

Spring: June 1

International Students

(currently residing in U.S.):

Refer to U.S. Citizens deadlines

Minimum Total Hours:	90
Program Level:	Doctoral
CIP Code:	40.0607
Dept Code:	MSC
Program (Major/College):	MSC MS

Concentrations:

Biological Oceanography (BOC)

Chemical Oceanography (COB)

Geological Oceanography (GOG)

Interdisciplinary (IDY)

Marine Resource Assessment (MRA)

Physical Oceanography (POG)

PROGRAM INFORMATION

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The college's location on St. Petersburg's Bayboro Campus allows immediate access to Tampa Bay and the Gulf of Mexico. Bayboro Harbor is home-port to the R/V Bellows (71 ft.) and the R/V Suncoaster (110 ft.) operated by the Florida Institute of Oceanography (FIO) for the State University System. The college's principal building is shared with FIO and is adjacent to the Fish and Wildlife Research Institute (FWRI), the research arm of the Florida Fish and Wildlife Conservation Commission (FWCC). A recently completed research building shared by CMS and FWCC houses a remote sensing, satellite data-acquisition center. With the Center for Coastal Geology and Regional Studies of the U.S. Geological Survey and the office of the Tampa Bay National Estuary Program also at Bayboro, our campus has one of the largest concentrations of marine scientists in the southeastern United States. Many of these scientists serve on advisory committees of CMS graduate students.

Accreditation:

Accredited by the Commission on Colleges of the Southern Association of College and Schools.

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- Bachelor's degree or equivalent from a regionally accredited university (preferable majors include biology, chemistry, geology, physics or math). Master's degree in one of the above sciences highly preferable.
- Have earned a "B" (3.0 on a 4.0 scale) average or better in all work attempted while registered as an upper division student working for a baccalaureate degree.
- Have completed all of the coursework listed on our website (<http://www.marine.usf.edu>) under "Undergraduate Preparation"
- Have taken the Graduate Record Examination (GRE) within 5 years preceding application. The scores generally considered acceptable by the college are as follows: Verbal = 500, Quantitative = 600
- Have the commitment of a Marine Science faculty member to serve as advisor during the student's graduate studies.

Contact Program for additional information and requirements (e.g., Research Interest Statement, Letters of Recommendation, etc.). (<http://www.marine.usf.edu/graduate-programs/applications.shtml>)

DEGREE PROGRAM REQUIREMENTS

A committee, consisting of a major advisor and at least 4 other members of the graduate faculty, is appointed to supervise and guide the program of the candidate. One member shall be from a science department outside Marine Science.

Total Minimum Hours Required:

90 beyond the Bachelor's

Students must complete a minimum of 90 credits beyond the Bachelor's degree, (12 hours of core requirements, 16 hours of dissertation, and 62 hours split between coursework and research as determined by the committee) and must complete the following:

1. CORE REQUIREMENTS (12 hours)

Core courses completed with a grade of "B" or better

- | | | | |
|----|----------|-------------------------|-----|
| a. | OCB 6050 | Biological Oceanography | (3) |
| b. | OCC 6050 | Chemical Oceanography | (3) |
| c. | OCG 6051 | Geological Oceanography | (3) |
| d. | OCP 6050 | Physical Oceanography | (3) |

2. CONCENTRATION REQUIREMENTS

Students select one of the following concentrations. There is no minimum credit requirement except for the Marine Resource Assessment Concentration:

Biological Oceanography (BOC)
 Chemical Oceanography (COB)
 Geological Oceanography (GOG)
 Interdisciplinary (IDY)

Physical Oceanography (POG)
Marine Resource Assessment (MRA)

Students in Marine Resource Assessment Concentration area are required to take 3 courses from the following list (totaling 9 credit hours):

- a. Population Dynamics (3)
- b. Fish Biology (3)
- c. Dynamics of Marine Ecosystems (3)
- d. Applied Multivariate Statistics (3)

3. ELECTIVE REQUIREMENTS

Electives are taken within each concentration area (see above)

4. QUALIFYING EXAM REQUIREMENTS

A comprehensive qualifying exam consisting of a written and oral portion. A student must receive a passing vote on the qualifying exam from at least 4 committee members before admission to Ph.D. candidacy.

5. DISSERTATION REQUIREMENTS (16 hours)

A minimum of 16 credits of OCE 7980. Following admission to candidacy, the student must enroll in OCE 7980 when engaged in research, data collection, or writing activities relevant to the dissertation. The student is required to accumulate a minimum of 6 credits during each previous 12 month period (previous 3 terms, e.g., Fall, Spring, Summer) until the degree is granted.

A dissertation, and a dissertation defense examination.

6. OTHER REQUIREMENTS

Other coursework as required by dissertation advisory committee

COURSES

See <http://www.ugs.usf.edu/sab/sabs.cfm>