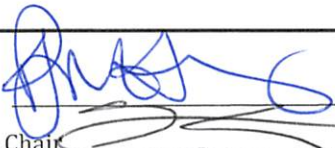



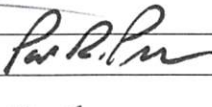

 <b>FLORIDA ATLANTIC UNIVERSITY</b>	<b>PROGRAM CHANGE REQUEST</b> <b>Graduate Programs</b>	UGPC Approval _____ UFS Approval _____ Banner Posted _____ Catalog _____
	<b>Department</b> Marine Science and Oceanography  <b>College</b> Science	
<b>Program Name</b> MS Marine Science and Oceanography	<b>Effective Date</b> <small>(TERM &amp; YEAR)</small> Spring 2018	
<b>Please explain the requested change(s) and offer rationale below or on an attachment</b>  1. The addition of Marine Fisheries Ecology and Management OCB 6715 as an approved course within the "Conservation and Ecology" Core Subject Area. This is a newly developed course that is highly relevant to students working in the MS Marine Science and Oceanography degree program  2. Change of the Application Deadline. We request that the application deadline be changed to January 15th for admission in the Fall semester. This will bring the deadline in line with other MS programs at the university including the MS Biology  Both changes were approved by a vote of the full MS Marine Science and Oceanography Program Committee		
<b>Faculty Contact/Email/Phone</b> Peter McCarthy/pmccart5@fau.edu/772-242-2632	<b>Consult and list departments that may be affected by the change(s) and attach documentation</b>	
<b>Approved by</b> Department Chair  College Curriculum Chair  College Dean  UGPC Chair   2/28/18 Graduate College Dean  UFS President _____ Provost _____	<b>Date</b> 1/31/18 2/11/18 2/11/18 2-28-16 2-28-18	

Email this form and attachments to [UGPC@fau.edu](mailto:UGPC@fau.edu) one week before the UGPC meeting so that materials may be viewed on the UGPC website prior to the meeting.

**GRADUATE COLLEGE**

**FEB 12 2018**

**Received**

<b>Curriculum Information</b>	
<b>Current Program</b>	
<b>Master of Science</b>	
<b>Program:</b>	Master of Science in Marine Science and Oceanography
<b>College:</b>	C.E. Schmidt College of Science
<b>Major:</b>	Marine Science and Oceanography

### **Master of Science with Major in Marine Science and Oceanography**

This is an interdisciplinary program designed to provide students with specialized training in Marine Science and Oceanography jointly administered by the Charles E. Schmidt College of Science and Harbor Branch Oceanographic Institute. Participating faculty have appointments at HBOI and the College of Science.

Students are required to take most of the coursework spread across the core subject areas listed below. The exact courses taken are to be determined by students and their advisory committees. The application deadline is ~~March 15~~January 15 for the fall semester.

### **Admissions Requirements**

In addition to meeting all of the University and College admission requirements for graduate study, each applicant for the M.S. MSO program must:

1. Have a minimum of 3.0 GPA (B or better average) on the last 60 hours of undergraduate credits, or established graduate level proficiency.
2. Provide two letters of recommendation,
3. Have minimum GRE scores of 151 Verbal and 151 Quantitative for GREs taken during or after August 2011 (or a cumulative score of 1000 on the Verbal and Quantitative portions of the GRE prior to Oct 2011). GRE scores older than 5 years prior to admission will not be accepted.
4. Obtain a "sponsor" from within the faculty of the M.S. MSO program, who will then act as the student's advisor until a thesis topic has been chosen.

For sponsor selection suggestions, go to the departmental web pages to examine the fields and interests of individual faculty. When you find a faculty member in your field of interest, contact them directly. Your application package must contain a signed sponsor form from the faculty member.

## Thesis Option

A student curriculum consists of a minimum of 37 credits taken in the following three categories:

*Required Courses:* Three courses (7 credits) are required of all M.S. MSO students. They should be taken at the beginning of the graduate program.

MSO Required Courses		
Physical & Geological Oceanography	OCE 6097	3
Biological and Chemical Oceanography	OCE 6057	3
Geosciences Colloquium Series	GEO 6920	1
Total Research Core		7

*Core Subject Areas and Electives:* 24 credits from the core subject areas and electives, with at least one course from each of four different core subject areas. Up to 6 credits designated as “Special Topics” courses may be taken with the approval of the Thesis Advisor.

No more than 6 credits of electives taken outside the core areas will be counted toward the degree. No courses under the 5000 level may be taken. No more than 3 credits of Directed Independent Study may be counted toward this degree.

*Thesis:* 3 to 6 credits.

## Non-Thesis Option

A student curriculum consists of a minimum of 37 credits taken in the following three categories:

*Required Courses:* Three courses (7 credits) are required of all M.S. MSO students. They should be taken at the beginning of the graduate program.

MSO Required Courses		
Physical & Geological Oceanography	OCE 6097	3
Biological and Chemical Oceanography	OCE 6057	3
Colloquium	GEO 6920	1
Total Research Core		7

*Core Subject Areas:* A minimum of 24 credits from the core subject areas, with at least one course from each of four different core subject areas. Up to 6 credits designated as “Special Topics” courses may be taken with the approval of the student’s Advisor.

*Electives and Directed Independent Study:* No more than 6 credits of electives taken outside the core areas will be counted toward the degree. No courses under the 5000 level may be taken. No more than 3 credits of Directed Independent Study may be counted toward this degree.

<b>Core Subject Areas</b>	
<b>Marine Biology</b>	
Marine Invertebrate Zoology	ZOO 6256
Marine Invertebrate Zoology Lab	ZOO 6256L
Biology of Sea Turtles	ZOO 6406
Biology of Sharks and Their Relatives	ZOO 6409
Natural History of Fishes	ZOO 6456
Natural History of Fishes Lab	ZOO 6456L
Seminar in Ichthyology	ZOO 6459
Histology of Fishes & Aquatic Invertebrates	ZOO 6757
Aquatic Animal Health	PCB 6772
Physiology of Marine Animals	PCB 6775
Advances in Finfish Aquaculture	BSC 6342
Marine Molecular Biology	PCB 6465
Sensory Biology & Behavior of Fishes	PCB 6871
Introduction to Marine Biotechnology	BSC 6346
<b>Coastal and Geological Science</b>	
Marine Global Change	OCE 6019
Shore Erosion and Protection	GLY 5575C
Marine Geology	GLY 5736C
Comparative Carbonate Sedimentology	GLY 6352
Coastal Environments	GLY 6737
Global Environmental Change	GLY 6746
Methods in Hydrogeology	GLY 6838
Coastal Hazards	GLY 6888
Advanced Topics in Applied, Coastal, and Hydrogeology	GLY 6934
<b>Conservation and Ecology</b>	
Natural History of the Indian River Lagoon	OCB 6810
Coastal Plant Ecology	BOT 6606
Coastal Plant Ecology Lab	BOT 6606L
Coral Reef Ecosystems	OCB 6266



Coral Reef Ecosystems/Lab	OCB 6266L
Conservation Biology	PCB 6045
Advanced Ecology	PCB 6046
Marine & Estuarine Community Dynamics	PCB 6316
Marine Ecology	PCB 6317
Marine Conservation	BSC 6936
Marine Ecology Lab and Field Studies	PCB 6317L
Biogeography	GEO5305
Restoration Implementation and Management	EVR 6358
Ecological Theory	PCB 6406
<b>Marine Fisheries Ecology and Management</b>	<b>OCB 6715C</b>
<b>Remote Sensing and GIS</b>	
Digital Image Analysis	GIS 5033C
Remote Sensing of the Environment	GIS 5038C
Principles of Geographic Information Systems	GIS 5051C
Applications in Geographic Information Systems	GIS 5100C
Programming in Geographic Information Systems	GIS 5103C
Advanced Remote Sensing	GIS 6039
Topics in Geoinformation Science	GIS 6120
Hyperspectral Remote Sensing	GIS 6127
Underwater Optical Imaging for Marine Scientists	OCE 6267
Marine Optics	OCE 6269
Data Processing for studies & Modeling of Marine Systems	OCB 6673
Image & Video Processing & Vision in Marine Environment	EVS 5385
Ocean Monitoring Systems & Implementation Strategies	OCE 6680
<b>Chemistry</b>	
Chemistry for Environmental Scientists	CHS 6611
Environmental Geochemistry	GLY 5243
Dynamics of Marine Biogeochemical Processes	OCE 6350
<b>Statistics and Communication</b>	
Experimental Design and Biometry	PCB 6456
Advanced Multivariate Biometry	PCB 6457
Scientific Communication	BSC 6846