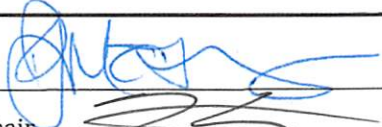

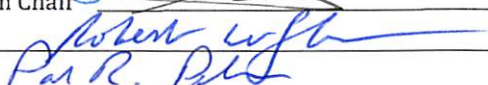
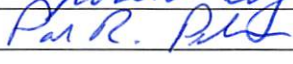
 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Graduate Programs		UGPC Approval _____ UFS Approval _____ Banner Posted _____ Catalog _____
	Department Marine Science and Oceanography College Science		
Program Name MS Marine Science and Oceanography		<input type="checkbox"/> New Program <input checked="" type="checkbox"/> Change Program	Effective Date (TERM & YEAR) fall 2019
<p>Please explain the requested change(s) and offer rationale below or on an attachment</p> <p>The MS Marine Science and Oceanography program is requesting changes to the catalog entry to reflect new courses which were approved in 2018:</p> <p>Insertion of the course number OCE 6908 Directed Independent Research Insertion of the course number OCE 6972 Thesis Research</p> <p>We are also requesting the continuation of use of the spring semester application deadline, October 15, which was approved for the first year of intake. We request that spring enrollment continues and that "October 15 for spring enrollment" be included in the catalog.</p> <p>Red-lined catalog copies are attached to this request.</p>			
Faculty Contact/Email/Phone Peter McCarthy/pmccart5@fau.edu/62632		Consult and list departments that may be affected by the change(s) and attach documentation	
Approved by Department Chair  College Curriculum Chair  College Dean  UGPC Chair  UGC Chair _____ Graduate College Dean _____ UFS President _____ Provost _____		Date 11/20/18 11/01/19 1-14-19 1/23/19	

Email this form and attachments to 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

JAN 15 2019

Received

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

GRADUATE COLLEGE

JAN 15 2019

Received

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 January 15 for the fall semester and October 15 for the spring 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: 18-24 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 Research \(OCE 6908\)](#) may be counted toward this degree.

Thesis: 6 to 12 credits ([OCE 6972](#));

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-Research (OCE 6908) may be counted toward this degree.

Core Subject Areas	
Marine Biology	
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
Coastal and Geological Science	
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
Conservation and Ecology	
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
Marine Fisheries Ecology and Management	OCB 6715C
Remote Sensing and GIS	
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
Chemistry	
Chemistry for Environmental Scientists	CHS 6611
Environmental Geochemistry	GLY 5243
Dynamics of Marine Biogeochemical Processes	OCE 6350
Statistics and Communication	
Experimental Design and Biometry	PCB 6456
Advanced Multivariate Biometry	PCB 6457
Scientific Communication	BSC 6846