

# PROFESSIONAL MASTERS DEGREE in AQUATIC ENVIRONMENTAL SCIENCE

## ADMISSIONS POLICY

Any degree seeking student with at least a B.S. or B.A. degree in a natural or physical science, mathematics or engineering may apply to enter the Professional Aquatic Environmental Science Masters degree program. This is a course-based, terminal masters degree culminating in a capstone experience course that will focus on an internship or project which will be supervised collaboratively by FSU faculty and outside employers. There is no Ph.D. program option. Admission to the program is granted upon the recommendation of the admissions committee. Students pay all tuition and fees.

## MAINTENANCE OF ACTIVE STUDENT STATUS

### **Minimum Standards**

In order to remain in the Aquatic Environmental Science graduate program, a student must:

1. Be registered or be on a departmentally approved leave of absence (see below)
2. Be enrolled in an approved schedule of classes
3. Maintain a cumulative grade point average of at least 3.0
4. Make satisfactory progress in the program
5. Comply with all other University requirements as stated in the Florida State University Graduate Bulletin

Satisfactory progress in number 4 is determined by the Director of the Aquatic Environmental Science Program

### **The Director of the Aquatic Environmental Science Graduate Program**

The Director approves the student's admission to the program and provides guidance and facilities during the student's tenure. The Capstone Experience course is facilitated by the Director.

### **Leave of Absence**

A student who cannot register for any semester excluding summer should submit a written leave of absence request, approved by the Director, to the Oceanography Program Coordinator.

A student not registered for two or more successive semesters must comply with the University requirement and apply for admission through the University's Office of Admission. Such admission will not be automatic, but must be reviewed by the admissions committee and the program director.

### **Voluntary Separation**

A student may leave the program at any time by notifying the Director in writing and returning all FSU materials.

### **Dismissal**

A student may be dismissed from the AES program for not complying with any of the reasons listed above under Minimum Standards. The dismissal of a student who has fallen below any of the minimum standards (1-5) will be by the Program Director and the Oceanography Program Coordinator.

## GENERAL DEGREE REQUIREMENTS

### **Prerequisites**

An undergraduate degree in one of the natural or physical sciences, mathematics or engineering.

### **Program of Study**

The PMD Aquatic Environmental Science program is course-based culminating with a capstone experience course. Thirty-six semester hour credits of 5000 level coursework are required. Three of the 36 must be Capstone Experience credits (OCE5934r). A faculty Director will guide the student's progress in the program. The university requires that at least 21 of these hours must be taken on a letter grade basis (A, B, C). Students must receive permission from the Program Director to take any course for a satisfactory/unsatisfactory grade. The capstone project for the PSM students will be supervised collaboratively by FSU faculty and outside employers.

Only courses numbered 5000 or above are normally taken by graduate students, however, the program director may permit the student to take specified 4000 level courses in the degree program. For example, a 4000 level statistics course may be substituted for the analytical requirement with permission from the program director. Such 4000 level courses may be credited toward a graduate degree.

The required coursework must be taken in the Department of Earth, Ocean & Atmospheric Science or in other scientific disciplines as the individual's interest and capstone experience dictate.

Progress should be reviewed annually. Before registration for the third semester or upon the completion of 18 credit hours, the student should meet with the Director/Academic Coordinator to evaluate progress up to that point. A second evaluation should be done before registration for the fourth and final semester or before completing the final nine credit hours.

The University requires that all work for the Master's degree must be completed within seven (7) years from the time of the student's initial registration. This program is designed to be completed in 2 years when attending full time (18 credits each academic year).

### **AES courses applied toward a Masters in Oceanography**

If an AES student is admitted to the department for a research-based masters in oceanography, his or her supervisory committee will decide on a case by case basis if any courses taken for the Masters in Aquatic Environmental Science can be applied to the Oceanography degree requirements.

## COURSE POLICY

Each semester, before registering for any courses, the student should confer with the AES Program Director.

### **Course Requirements 12 hours**

Aquatic Environmental Science Master's students are required to **complete four (4)** courses from the list below. All are 3 credit hours unless indicated otherwise.

EVR5455C Wetlands

OCB 5636 Marine Microbial Ecology

OCE 5009L Coastal Oceanography and Marine Field Methods (4)

OCB5050 Basic Biological Oceanography

OCC 5050 Basic Chemical Oceanography

OCP 5050 Basic Physical Oceanography

OCB 5635 Coastal Ecology

OCB 5930 Marine Pollution

OCE 5065 Marine Conservation Biology.

GLY 5827 Hydrology

### **And complete three of the classes from the list below: 9 hours**

MAN 5245 Organizational Behavior

BUL 5810 Legal and Ethical Environment of Business

COM 5450 Introduction to Project Management

COM 5451 Advanced Topics in Project Management (after COM 5450)

COM 5126 Organizational Communication theory and Practice

COM 5115 Scientific Presentation and Posters

ISM 5021 Information and Technology Management

Or various ENT classes with advisor approval.

### **And Select two (2) of the following eight (8) analytical courses: (others with director approval) 6 hours**

GLY5757C Remote Sensing and GIS (4)

GLY 5595 Geostatistics (Advanced Topics in Sedimentation and Stratigraphy)

BSC 5936 Quantitative Methods (Statistics)

GIS 5100 &L Geographic Info Systems (4)

GIS 5106 Advanced Geographic Information Science

GIS 5305 Geographical Information Systems for Environmental Analysis and Modeling

STA 5126 Introduction to Applied Statistics

STA 5206 Analysis of Variance and Design of Experiments

STA 5507 Applied Non-parametric Statistics

## AQES MS Program

**And Select two (2)** of the following elective courses based on the student's primary interest and capstone paper topic: Once the 4 core course requirements are met, any of the other core classes can be used as an elective and are not listed below. Other courses may be used upon consultation with the program director. 6 hours

OCB 5639 Marine Benthic Ecology  
OCB5930 Marine Pollution  
OCB5930 Zooplankton Ecology  
OCC5930 Geomorphology and Geochemistry  
OCC 5052 Aquatic Chemistry  
OCC 5415 Marine Geochemistry  
OCE 5018 Current Issues in Environmental Science  
OCG5106 The Earth System  
GLY 5885 Geologic Hazards Assessment  
GLY 5265 Nuclear Geology  
CHM 5086 Environmental Chemistry I  
OCB 5264 Coral Reefs  
OCB 5565 Primary Production  
OCC 5417 Geochemical Ocean Tracers  
GLY5267 Stable Isotope Tracers

GLY5265 Nuclear Geology  
GEO 5377 Natural Resource Assessment Analysis  
GLY 5575 Coastal Geology  
GLY 5887 Environmental Geology I  
GLY 5736 Marine Geology  
MET 5607 Atmospheric Composition and climate  
MET 5105 Global Climate Systems  
MET 6480 Biogeochemical Cycles and Global Change  
PCB 5345C Advanced Field Biology  
PCB 5447 Community Ecology  
ZOO 4204 Biology of Higher Marine  
LAW 6470 Environmental Law

### **OCE5934r Capstone Experience 3 hours**

This course is required in the final semester, 3 credits.

### **Capstone Experience Course**

Students, guided by the Director, select topics and interface with an outside employer for an internship or research project. Following the internship or project they will prepare a 20-25 page synthesis paper (double-spaced, 12-point, Times font). Successful students will demonstrate adequate knowledge of the environmental science field and the ability to synthesize information from several sources (including a variety of publications) into a cohesive and meaningful paper. The course culminates in a seminar at which participants make an oral presentation based on the content of their paper reflecting their analysis of a particular problem or issue. The internship/project will be supervised collaboratively by FSU faculty and outside employers.

### **Completion of Degree Requirements**

In the final semester the student must enroll in the Capstone Experience course. In the course the student must satisfactorily complete the paper and presentation. Early in that final semester (see Registration Guide calendar for deadline), the student must apply for graduation on Blackboard/Secure Apps/Apply for Graduation and make arrangements with the Program Director for the presentation.