

Program Description

The University of Maryland Eastern Shore (UMES) is offering a Professional Science Master's degree Program (PSM) in Quantitative Fisheries and Resource Economics in collaboration with state and federal agencies.

The goal of the program is to enhance the training and graduation of students in these two areas where there is a critical need for experts in the U.S. to manage our fisheries resources. This innovative educational program will provide students with the knowledge, quantitative, communication, and leadership skills required to obtain careers in natural resources; with a focus on fisheries management and conservation.

Students will complete 37/38 credit hours, including a non-thesis project of three credit hours as part of their internship experience, in order to earn a degree. Students will be required to complete up to a three month internship at federal or state agencies or environmental consulting firms.

The program offers online courses. The included concentrations in Quantitative Fisheries or Resource Economics is considered essential for training fisheries scientists, and will enhance students' communication and leadership skills, while uniquely providing areas of study that many institutions do not currently offer.

These courses are available to other graduate students at UMES and other institutions. Moreover, employees of federal and state agencies have easy access to these courses for additional training. The program will help broaden participation in science through the recruitment and training of talented US citizens, including underrepresented minority groups.

Graduates from the program will help meet the staff needs of federal and state agencies, universities, environmental consulting firms, and international aid agencies, in order to manage effectively the nation's fisheries resources.



**Professional Science
Masters Degree Programs**
University of Maryland Eastern Shore
3109 Carver Hall
Princess Anne, MD 21853
Website: <https://www.umes.edu/PSM>

For Information contact:
Dr. Paulinus Chigbu
Program Director
410-621-3034
pchigbu@umes.edu

Judith Rose
PSM Coordinator
410-651-7846
jarose@umes.edu



**Paul S. Sarbanes Coastal Ecology Center
Assateague Island, MD**

University of Maryland Eastern Shore

Professional Science Master's Degree Program

in
**Quantitative Fisheries
and
Resource Economics**

Photo Courtesy of National Oceanic and Atmospheric Administration

The University of Maryland Eastern Shore Professional Science Masters Degree Program In Quantitative Fisheries and Resource Economics

Admissions

The general admission process and requirements of the PSM degree program are similar to those of other master's or doctoral programs in the STEM disciplines at UMES. Applicants must have earned a bachelor's degree in any of the STEM disciplines with a minimum cumulative GPA of 3.0 on a 4 point scale.



Current Students

Eight Students are currently enrolled in the program including one student working for the NOAA Northeast Fisheries Science Center in Woods Hole, MA. The first cohort of students graduated in Spring 2012.

Online Courses

All courses are being offered both live and online via Adobe Connect.

Course Requirements

Core Courses

- | | |
|---|-------------|
| 1) Non-thesis Research project
(as part of internship requirement) | - 3 credits |
| 2) Fish Stock Assessment | - 3 credits |
| 3) Risk and Decision Analysis | - 3 credits |
| 4) Scientific Communications | - 4 credits |
| 5) Personnel Development, Management,
and Evaluation | - 3 credits |
| 6) Business Ethics | - 3 credits |

Total - 19 credits

Quantitative Fisheries Science Track

Required Courses:

- | | |
|---|-------------|
| 1) Population Dynamics | - 3 credits |
| 2) Fish Ecology | - 3 credits |
| 3) Multivariate Statistics | - 3 credits |
| 4) Fisheries Survey Sampling | - 3 credits |
| 5) Bayesian Statistics or
Advanced Fisheries Modeling | - 3 credits |
| 6) Fisheries/Natural Resources Computer
Programming or, Ecosystem Modeling
Applied to Fisheries Management or,
Introduction to Environmental and
Resource Economics | - 3 credits |

Total - 18 credits

Resource Economics Track

Required Courses:

- | | |
|---|-------------|
| 1) Research Methods in Env. &
Natural Resources Economics | - 3 credits |
| 2) Economics of Renewable Resources | - 3 credits |
| 3) Econometrics | - 4 credits |
| 4) Marine Resource Economics and Policy | - 3 credits |
| 5) Advanced Microeconomic Theory | - 3 credits |
| 6) Bayesian Statistics or Institutional and
Behavioral Economics or Advanced
Environmental and Resource Economics | - 3 credits |

Total - 19 credits

Internships

Students are required to complete a 6 -12 week internship at such agencies as the NOAA National Marine Fisheries Service, state Departments of Natural Resources, or environmental consulting firms. This internship experience is intended to be intensive and to correspond to a student's chosen thematic track.



Financial Support

Full tuition paid for the Fall 2013 semester (10 credit hours), for qualifying students participating in the program. (See our website at www.umes.edu/psm for full admission and financial aid requirements.)



Photo courtesy of National Oceanic and Atmospheric Administration