FISHERIES SCIENCE
(STOCK ASSESSMENT)

MASTER OF SCIENCE DEGREE

Develop and apply expert mathematical and statistical skills, vital to the sustainable management of marine fisheries.
PROGRAM DESCRIPTION

The Degree of Master of Science in Fisheries Science (Stock Assessment) is a full-time, research-focused Master’s degree offered by the Marine Institute’s School of Fisheries. This program is for students who aim to pursue a career in stock assessment, a discipline within fisheries science. Stock assessment professionals use data derived from many sources to construct models that inform us about biomass of organisms in the ocean and how many we can catch sustainably. While stock assessment professionals must have many of the same proficiencies as other fisheries scientists, they have an additional requirement of being experts on the mathematics and statistics that underpin this heavily quantitative field.

For more information and to apply, www.mi.mun.ca/fssa.

PROGRAM OBJECTIVE

To train world-class researchers with a specialization in statistical stock assessment, capable of analyzing fisheries data and communicating the results and implications of their research to the scientific community and beyond.

Graduates of this program will be able to:

- Conduct original research
- Collect, manage and analyze data
- Display and interpret qualitative information
- Demonstrate adherence to the principles of scientific integrity
- Effectively communicate their research
  - Through peer-reviewed publications in reputable science journals
  - In oral and poster-based presentations at scientific conferences and meetings
  - In formats accessible to stakeholders, including media, industry publications and in other relevant venues
- Explain how their research fits with the broader policy environment of fisheries at local, national and international scales
- Demonstrate an advanced understanding of quantitative stock assessment
PROGRAM REQUIREMENTS

The program’s core courses are designed to develop proficiencies in quantitative techniques, study design, and science communication that are necessary to be effective at fisheries research.

Students must complete 15 credit hours of course work.

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Students must meet with their supervisory committee within the first three months of their program, submit a research proposal within the first six months and then present their proposal at a public seminar.

Students must also complete a thesis composed of at least one chapter of original research, which should include content of direct relevance to the practice of quantitative stock assessment. Prior to submitting their thesis for examination, students must complete a public presentation on their work.

Students will normally complete their thesis within two years (six semesters) of enrolling in the program.

PROGRAM STRUCTURE

This program recognizes that fisheries science is a broad discipline that is applied in nature and requires proficiency in quantitative and communication skills. Students will gain practical skills through coursework while developing their theoretical understanding through supervised research and through their interactions as an active participant within the scientific community. Students will also be exposed to the depth of the field of fisheries science through lab meetings, reading groups and guest lectures.

ADMISSION

Requirements

Admission to the program is on a limited and competitive basis.

To be considered for admission to the program, an applicant will normally possess a high second class Honours degree or an M.D. degree, or the equivalent of either, both in achievement and depth of study from an institution of recognized standing.

Applicants must be able to demonstrate a satisfactory knowledge of mathematics, statistics and scientific computing.

Applicants will need to have identified a supervisor, who must be either a research scientist with the Marine Institute’s School of Fisheries, a cross-appointed or adjunct faculty with the School or an actively-publishing researcher within the School that holds a Ph.D. Students will also need a supervisory committee.

Any other applicant may be considered for admission provided that:

a. The applicant’s undergraduate record after the first year shows an average of at least Grade B in courses in the proposed field of specialization;

b. The applicant’s overall undergraduate record after the first year shows an average of at least Grade B in all courses taken; and

c. The applicant demonstrates a commitment and passion for mathematics or statistics, through employment or experience in field schools, research programs, regulatory agencies or government departments, non-governmental organizations, consulting activities, or other relevant activities.

HOW TO APPLY

Applications are reviewed three times a year. Applicants should submit their application to Memorial University’s School of Graduate Studies by the following deadlines:

- FALL ADMISSION — MAY 15
- WINTER ADMISSION — SEPTEMBER 15
- SPRING ADMISSION — JANUARY 15

For more information and to apply online, go to www.mun.ca/become/graduate/apply.
PROGRAM DELIVERY AND SUPPORT

Program courses will be delivered at the Marine Institute Ridge Road campus. M.Sc. research projects should be of a scope that can reasonably be completed in two years, including coursework.

Internships may be a part of any student’s research program, provided the supervisor and supervisory committee are supportive. The Marine Institute’s Office of Career Integrated Learning is a resource that could be available to students or they can seek internships themselves with the support of their mentorship team.

ABOUT THE MARINE INSTITUTE

As a campus of Memorial University of Newfoundland, the Fisheries and Marine Institute is Canada’s most comprehensive centre for education, training, applied research and industrial support for the ocean industries.

Located on the edge of the Atlantic Ocean, we are one of the most respected centres of marine learning and applied research in the world.

The Marine Institute provides more than 20 industry-driven programs ranging from technical certificates to doctorate degrees. In addition to undergraduate and graduate degrees, the Institute offers advanced diplomas, diplomas of technology and technical certificates.

Students enjoy a learning environment where small class sizes are the rule, hands on instruction is a way of life and competitive tuition rates put an internationally-recognized education well within reach.

The Institute also runs a variety of short courses and industrial response programs. All programs and courses are designed to provide students with knowledge and skills required for success in the workforce.

The Institute has three Schools — the School of Fisheries, the School of Maritime Studies and the School of Ocean Technology — and within these Schools a number of specialized centres and units.

Our School of Fisheries reflects the diversity of fisheries science as a whole. Scientists in the Centre for Fisheries and Ecosystems Research primarily study ecosystem dynamics that inform the management of fisheries. Researchers at the Centre for Sustainable Aquatic Resources develop and assess techniques for conducting fisheries sustainably. Research on fish processing is the mandate of the Centre for Aquaculture and Seafood Development. Our researchers collaborate with engineers, social scientists, policy experts, economists, and members of many other disciplines in pursuit of their research objectives.
CONTACT INFORMATION

GRADUATE STUDENT RECRUITMENT OFFICER
Student Affairs
Fisheries and Marine Institute of
Memorial University of Newfoundland

Telephone: 709.778.0395
Toll-free: 1.800.563.5799, ext. 0395

recruitment@mi.mun.ca
www.mi.mun.ca/fssa
www.mun.ca/become/graduate

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