MASTER’S DEGREE
Influence, lead and provide decision making support for the management and planning of coastal and marine spaces.

MARINE STUDIES
(MARINE SPATIAL PLANNING & MANAGEMENT)
PROGRAM DESCRIPTION

The first graduate program of its kind in Canada, the Master of Marine Studies (Marine Spatial Planning and Management) focuses on the governance, bio-ecological, socio-economic, cultural and technological elements of sustainable ocean and coastal zone development, planning and management.

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

PROGRAM OBJECTIVE

Graduates will be equipped with a clear understanding of integrated coastal and ocean management and marine spatial planning concepts/processes and their relationship to ecosystem-based management approaches.

Graduates will also enter the sector with:

- A broad level of understanding of governance, policy/legislative, ecological, social, cultural and economic elements of coastal and ocean areas;
- Strong communication, conflict management and facilitation skills to effectively engage coastal and ocean regulators and stakeholders;
- Technical capabilities/skills and knowledge necessary to make technology-supported management decisions and recommendations incorporating consideration of these elements; and
- The ability to apply coastal and marine spatial planning knowledge and skills to provide decision support and analysis and bridge the technical and theoretical aspects of Integrated Coastal and Ocean Management and Marine Spatial Planning.
PROGRAM STRUCTURE

This program is offered primarily online. Several courses are offered on-campus, including one required (Core) course during Spring Intercession. This program includes options for an internship or Research Project.

The program is structured to provide a balance between conceptual/theoretical background and practical applied skills. As such, students will develop a broad level understanding of planning processes and the governance, policy/legislative, ecological, social, cultural and economic elements of coastal and ocean areas complemented by practical and applied skills for stakeholder engagement, project management and utilization of geospatial technology to support planning efforts. Throughout the program, courses will be structured to introduce theoretical concepts and then examine real world examples of their application.

Students will complete seven Core Courses, an Internship (MSTM 6019) or Research Project, and choose one of three options for elective course selection:

- Two Category A Electives plus one Category B Elective
- Two Category B Electives plus one Category A Elective
- Two Category C Electives plus one Category A or B Elective.

CORE COURSES

MSTM 6011 Introduction to Integrated Coastal and Ocean Management / Marine Spatial Planning
MSTM 6012 Fundamentals of Geospatial Analysis
MSTM 6013 Resource/Natural Environment and Ocean Use Characterization
MSTM 6014* Geospatial Analysis for Marine Spatial Planning
MSTM 6022 Communication and Conflict Resolution in a Technical Environment
MSTM 6027 Coastal and Ocean Environments Policies
MSTM 6034 Project Management in the Offshore, Health, Fisheries and Engineering Technology Environments

ELECTIVES CATEGORY A: NATURAL ENVIRONMENT

ENVE/ENVS 6001* Earth and Ocean Systems
MSTM 6001 Fisheries Ecology
MSTM 6015 Marine Protected Areas
MSTM 6016 Coastal Geomorphology / Oceanography

ELECTIVES CATEGORY B: HUMAN ENVIRONMENT

MSTM 6008 Social and Philosophical Issues in Sustainable Fisheries
MSTM 6017 Social and Cultural Aspects of Coastal Communities
MSTM 6018 Coastal and Ocean Economics

ELECTIVES CATEGORY C: DECISION SUPPORT / GEOSPATIAL ANALYSIS

GEOG 6120* Geospatial Modelling and Analysis
GEOG 6821* Advanced Computer Modelling / Habitat Mapping

PROJECT OPTIONS

MSTM 6019 Internship
RESEARCH PROJECT

* DELIVERED ON-CAMPUS ONLY

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 relevant second class or better undergraduate degree from a university of recognized standing.

Students intending to undertake electives in Decision Support / Geospatial Analysis (Category C) are required to have a background in mathematics, statistics and geographic information systems.

HOW TO APPLY

Applicants should submit their application to Memorial University’s School of Graduate Studies by the following deadline:

- FALL ADMISSION – MAY 15

For more information and to apply online, go to www.mun.ca/become/graduate/apply.
ENVE/ENVS 6001 - EARTH AND OCEAN SYSTEMS
This course covers topics including climate (energy balance and climate), oceanography, geology, and ocean life (ecosystems and productivity).

MSTM 6008 - SOCIAL AND PHILOSOPHICAL ISSUES OF FISHERIES MANAGEMENT
This course will explore the concepts of open access resource use from an historical perspective and the influence of capitalism on resource use, resource access and property regimes presently found in modern fisheries. Technology, resource partitioning and global economies will be explored in terms of impacts on communities, women and local economies. The emphasis of this course is the social and philosophical issues of resource use on individuals and the global community as we move into the 21st century.

MSTM 6012 - FISHERIES ECOLOGY
This course provides an overview of marine ecosystems and populations, their interactions with the environment, including the role of human activities. It considers the strengths and weaknesses of these approaches in terms of their applicability and relevance to real-world situations.

MSTM 6013 - RESOURCE/NATURAL ENVIRONMENT AND OCEAN USE CHARACTERIZATION
The course will address identification and characterization of resource/natural environment use patterns as a fundamental component of integrated coastal and ocean management/marine spatial planning. The course will study the interactions between natural environmental processes/features of coastal and ocean areas, coastal and ocean resources, as well as how numerous sectors and interests utilize value coastal and ocean space. Aspects such as ecologically and biologically significant areas, strategic environmental and risk assessment and planning related characterization efforts internationally, nationally and regionally will be included.
## Course Selection Chart

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Internship Option</th>
<th>Research Project Option</th>
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</thead>
<tbody>
<tr>
<td><strong>Core Courses</strong></td>
<td>COMPLETE 7</td>
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</tr>
<tr>
<td>MSTM 6011 Introduction to Integrated Coastal and Ocean Management / Marine Spatial Planning</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MSTM 6012 Fundamentals of Geospatial Analysis</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MSTM 6013 Resource/Natural Environment and Ocean Use Characterization</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MSTM 6014 Geospatial Analysis for Marine Spatial Planning</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MSTM 6022 Communication and Conflict Resolution in a Technical Environment</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MSTM 6027 Coastal and Ocean Environmental Policies</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MSTM 6034 Project Management in the Offshore, Health, Fisheries and Engineering Technology Environments</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Electives</strong></td>
<td>CHOOSE 1 OF 3 ELECTIVE OPTIONS</td>
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<tr>
<td><strong>Elective Courses Category A: Natural Environment</strong></td>
<td>2 CATEGORY A ELECTIVES PLUS 1 CATEGORY B ELECTIVE</td>
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</tr>
<tr>
<td>ENVE/ENVS 6001 Earth and Ocean Systems</td>
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<td></td>
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<tr>
<td>MSTM 6001 Fisheries Ecology</td>
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<tr>
<td>MSTM 6015 Marine Protected Areas</td>
<td>✓</td>
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<tr>
<td>MSTM 6016 Coastal Geomorphology / Oceanography</td>
<td>✓</td>
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<tr>
<td><strong>Elective Courses Category B: Human Environment</strong></td>
<td>2 CATEGORY B ELECTIVES PLUS 1 CATEGORY A ELECTIVE</td>
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<tr>
<td>MSTM 6008 Social and Philosophical Issues in Sustainable Fisheries</td>
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<td>MSTM 6017 Social and Cultural Aspects of Coastal Communities</td>
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<tr>
<td>MSTM 6018 Coastal and Ocean Economics</td>
<td>✓</td>
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</tr>
<tr>
<td><strong>Elective Courses Category C: Decision Support / Geospatial Analysis</strong></td>
<td>2 CATEGORY C ELECTIVES PLUS 1 CATEGORY A OR B ELECTIVE</td>
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<tr>
<td>GEOG 6120 Geospatial Modelling and Analysis</td>
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<tr>
<td>GEOG 6821 Advanced Computer Modelling/Habitat Mapping</td>
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<tr>
<td><strong>Project Options</strong></td>
<td>COMPLETE</td>
<td></td>
</tr>
<tr>
<td>MSTM 6019 Internship</td>
<td>✓</td>
<td>N/A</td>
</tr>
<tr>
<td>Research Paper</td>
<td>N/A</td>
<td>✓</td>
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</tbody>
</table>

### Program Delivery and Support

The overall structure of the program is course-based with courses offered online by the Fisheries and Marine Institute of Memorial University. This is fully supported by Centre for Innovation in Teaching and Learning (CITL). Brightspace is used as the main content delivery method and provides a virtual classroom for each course in the program.

Students can avail of all the services and support offered by the Marine Institute and Memorial University including access to the extensive University Library System resources and to Help Desk support available through CITL for technical issues related to Brightspace.

### 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 master’s 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.

These centres and units lead the Institute, both nationally and internationally, in applied research and technology transfer and in the provision of training to a variety of industry clients.
CONTACT INFORMATION

GRADUATE STUDENT RECRUITMENT OFFICER
Division of Academic and 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/msp
www.mun.ca/become/graduate

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