WHAT’S NEXT IN YOUR WORLD?

ADVANCED DIPLOMAS & POSTGRADUATE CERTIFICATES

Marine Institute
Memorial University
There are a million paths you can take. So which way should you go?

Whatever you want to be and wherever you want to go, the Marine Institute can get you there. Explore our post-graduate programs and find the career path to a world of opportunities.

Welcome to the Marine Institute.

Located in St. John’s, Newfoundland and Labrador, Canada, we’re a world-leading centre for ocean-related career education and research.

As a campus of Memorial University of Newfoundland, the Institute is one of the largest institutes of its kind in Canada offering a suite of over 20 programs for the oceans, maritime and food sectors.

A cutting-edge education from Marine Institute is one of the most affordable in Canada and provides graduates with credentials that are recognized around the globe.

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<td>ADVANCED DIPLOMAS</td>
<td>FOOD SAFETY</td>
<td>Build on a Bachelor’s degree or eligible diploma program with technical and hands-on experience with work-term opportunities.</td>
<td>1 YEAR</td>
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<td>SUSTAINABLE AQUACULTURE</td>
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<td>POSTGRADUATE CERTIFICATES</td>
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<td>An applied and practical suite of courses aimed at providing targeted professional competencies.</td>
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<td>QUALITY MANAGEMENT</td>
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FOOD SAFETY

ADVANCED DIPLOMA
Work on the front line protecting the public from food-related safety issues.

PROGRAM DESCRIPTION
The program places an emphasis on the food quality assurance component of the industry. It’s designed to provide a strong technical education in food safety and food inspection. Courses feature a combination of lectures, workshops, practical sessions, guest lecturers and projects to hone practical and technical skills. A work term placement will provide invaluable practical experience to help a graduate become an asset to the industry.

PROGRAM OBJECTIVE
This program is designed to:

• Provide a strong technical education in the areas of food safety and food inspection.
• Prepare students for employment in the food industry and regulatory agencies.
• Develop technical and analytical skills in the food production industry.

ADMISSION

REQUIREMENTS
An appropriate Bachelor’s degree, three-year diploma of technology, or a combination of work experience and formal education acceptable to the Admissions Committee.

Completion of introductory university courses in biology and chemistry (or similar courses deemed acceptable).

HOW TO APPLY
To apply online, go to www.mi.mun.ca/apply.
Applications acceptance is ongoing.
Fall entry only. This program does not accept winter or spring semester applications.

PROGRAM STRUCTURE
THIS ONE-YEAR PROGRAM IS DIVIDED INTO THREE TERMS:

TERM 1
Students will be required to take courses in Applied Statistics, Food Microbiology, Food Processing, Food Safety and Sanitation and Food Chemistry.

TERM 2
The second term continues the study of food safety and includes such courses as Food Law, Foodborne Diseases, Food Inspection Techniques, Management Principles, and Food Toxicology. A technical project course allows for in depth study of an area of special interest.

TERM 3
Students will find placements in pertinent industries or agencies for practical experience.

TERM 1 COURSES
- BIOL 4104 Food Microbiology
- CHEM 4102 Food Chemistry
- FDTE 4105 Food Safety & Sanitation
- FDTE 4111 Food Processing
- STAT 4106 Applied Statistics
- TKPR 413A Technical Project
- WKTM 1002 Work Term Preparation Seminar

TERM 2 COURSES
- BSMG 4111 Fundamentals of Canadian Food Laws and Regulations
- BSMG 4112 Management Principles
- FDTE 2118* Canned Foods and Thermal Processing
- FDTE 3102 Food Safety Enhancement Program/Hazard Analysis Critical Control Point
- FDTE 3104 Quality Management Program
- FDTE 3108 Global Food Safety Initiatives
- FDTE 4102 Food Inspection Techniques
- FDTE 4104 Foodborne Diseases
- TKPR 413B Technical Project
* Taught 5 consecutive days after end of Semester.

TERM 3 COURSES
- WKTM 4111 Work Term - Advanced Diploma in Food Safety

PROGRAM DELIVERY
Courses are delivered on-campus using a range of teaching methods including lectures, tutorials, laboratories, seminars and study tours.
SUSTAINABLE AQUACULTURE

ADVANCED DIPLOMA
Train for a leading role in the global aquaculture industry.

PROGRAM DESCRIPTION
Aquaculture has been identified as an important economic priority for the Canadian and provincial governments. Currently, there’s a large demand for leaders and managers in the industry across Canada and around the world.

PROGRAM OBJECTIVE
This program is designed to provide students, from a wide range of academic disciplines, with the education, training and management level skills required to participate in aquaculture development.

The goals of this program are to provide students with:
- Education and training for employment in a wide variety of fish and shellfish culture vocations.
- Management level training needed to ensure the logical & sustainable development of aquaculture industries.

ADMISSION
REQUIREMENTS
An appropriate Bachelor’s degree, three-year diploma of technology, or a combination of work experience and formal education acceptable to the Admissions Committee.

HOW TO APPLY
To apply online, go to www.mi.mun.ca/apply.
Applications acceptance is ongoing.
Fall entry only. This program does not accept winter or spring semester applications.

PROGRAM STRUCTURE
THIS ONE-YEAR PROGRAM IS DIVIDED INTO THREE TERMS:

TERM 1
In addition to fish health, finfish, shellfish culture, practical facility maintenance and animal husbandry and site selection, students also receive training in business-related topics such as marketing and research proposal development. Study tours to local aquaculture sites are also included in the first semester as well as several practical field sessions.

TERM 2
Courses in finfish nutrition, statistics, business management, aquaculture & the environment, aquaculture engineering and handling and processing aquaculture products. During this semester students also complete an in-depth, industry relevant research project designed to develop skills in experimental design, fish handling and aquaculture systems operations. Students also complete practical aquaculture courses which are designed to develop skills in net making, boating safety, seamanship, and marine emergency duties.

TERM 3
A 13-week aquaculture work term. Students work on finfish and shellfish farms or within laboratories and support agencies. Linkages for work terms have been established in Canada, the United States, South America, Australia, Europe and on international development projects.

TERM 1 COURSES
- AQUA 4100 Aquaculture Seminar Series
- AQUA 4102 Shellfish Culture
- AQUA 4107 Finfish Culture
- AQUA 415A Site Selection
- AQUA 4112 Practical Facility Maintenance and Animal husbandry
- BSMG 4102 Marketing Aquaculture Products
- SFTY 1104 WHMIS
- STAT 4103 Statistics
- TKPR 411A Technical Report
- WKTW 1002 Work Term Preparation Seminar

TERM 2 COURSES
- AQUA 4101 Handling & Processing Aquaculture Products
- AQUA 4103 Fish Health
- AQUA 4104 Fish Nutrition
- AQUA 4111 Aquaculture and the Environment
- AQUA 4113 Aquaculture Engineering
- AQUA 415B Site Selection
- BSMG 4104 Business Management
- TKPR 411B Technical Report
- AQUA 4114* Ropework and Net Mending
- SFTY 1101* First Aid
- SFTY 1125* Small Vessel Operator Proficiency
- SFTY 2102* MED A3
* Delivered between Term 2 and 3.

TERM 3 (WORK TERM)
WKTM 4112 Work Term - Advanced Diploma in Sustainable Aquaculture

PROGRAM DELIVERY
This program is delivered on campus using a combination of lectures, workshops, practical sessions on finfish and shellfish farms and field work. Faculty expertise is supplemented by guest lecturers from industry, government and aquaculture research institutions.
WATER QUALITY

ADVANCED DIPLOMA

Develop the skills and knowledge necessary for responsible utilization and treatment of water resources.

PROGRAM DESCRIPTION

This is the only post-graduate program of its kind in Atlantic Canada focusing on the study of water and wastewater. It consists of a balance of theory and practical applications through lectures, discussion seminars, case studies, laboratory, field trips and projects.

Students will be provided significant training in the technical aspects of water and wastewater treatment. An introduction to socio-economic and environmental factors, legislative policies, regulations, and the importance of protecting and managing water resources will also be emphasized. After completing the program, students will have the knowledge to treat, maintain and use our resources safely and in an eco-friendly way.

PROGRAM OBJECTIVE

Students receive significant training in the technical aspects of water and wastewater treatment. Students also complete specific courses in microbiology, chemistry, limnology, water and environmental policy, statistics and geographic information systems (GIS) and remote sensing that will enhance their understanding of the science behind water and wastewater treatment and management. Students are provided with an introduction to the socio-economic, environmental and legislative policies, regulations and the importance of protecting and managing water resources.

ADMISSION

REQUIREMENTS

An appropriate Bachelor’s degree, three-year diploma of technology, or a combination of work experience and formal education acceptable to the Admissions committee.

Completion of an introductory course in chemistry.

HOW TO APPLY

To apply online, go to www.mi.mun.ca/apply.

Applications acceptance is ongoing.

Fall entry only. This program does not accept winter or spring semester applications.

PROGRAM STRUCTURE

THIS PROGRAM IS COMPRISED OF TWO THIRTEEN (13) WEEK ACADEMIC TERMS, A SIX (6) WEEK TECHNICAL SESSION AND A THIRTEEN (13) WEEK WORK TERM.

The academic semester and technical session consist of a balance of theory and practical applications through lectures, discussion seminars, case studies, laboratory, field trips and an independent research project. The work term will involve students placed in pertinent industries or agencies for practical work experience.

TERM 1 COURSES

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIOL 4105</td>
<td>Water and Wastewater Microbiological Analysis</td>
</tr>
<tr>
<td>CHEM 4100</td>
<td>Water Chemistry</td>
</tr>
<tr>
<td>FDTE 4110</td>
<td>Introduction to Water and Wastewater Treatment</td>
</tr>
<tr>
<td>GEOG 403</td>
<td>Aquatic Systems</td>
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<tr>
<td>GEOG 4200</td>
<td>Geographic Information Systems</td>
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<tr>
<td>STAT 4103</td>
<td>Statistics - Water Quality</td>
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<tr>
<td>TKPR 415A*</td>
<td>Technical Project</td>
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<tr>
<td>WKTM 1002</td>
<td>Work Term Preparation Seminar</td>
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TERM 2 COURSES

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIOL 4200</td>
<td>Water and Wastewater Microbiology</td>
</tr>
<tr>
<td>BSMG 4110</td>
<td>Environmental Policy - Water Quality</td>
</tr>
<tr>
<td>CHEM 4200</td>
<td>Chemical and Analytical Methods</td>
</tr>
<tr>
<td>FDTE 4203</td>
<td>Water and Wastewater Processing I</td>
</tr>
<tr>
<td>GEOG 4100</td>
<td>Remote Sensing</td>
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<tr>
<td>TKPR 415B*</td>
<td>Technical Project</td>
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TERM 3 COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>FDTE 4204</td>
<td>Water and Wastewater Processing II</td>
</tr>
<tr>
<td>GEOG 4301</td>
<td>Applied GIS and Remote Sensing for Water Quality</td>
</tr>
<tr>
<td>TKPR 415C*</td>
<td>Technical Project</td>
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<tr>
<td>SFTY 1125</td>
<td>Small Vessel Operator Proficiency</td>
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<tr>
<td>SFTY 1135</td>
<td>Practical Boat Handling Skills</td>
</tr>
<tr>
<td>SFTY 2102</td>
<td>MED A3 - Marine Emergency Duties for Small Vessels</td>
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TERM 4 (WORK TERM)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>WKTM 4110</td>
<td>Work Term - Advanced Diploma in Water Quality</td>
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* TKPR 415A/B/C must be completed sequentially in the same academic year.

PROGRAM DELIVERY

This program is delivered on campus using a combination of lectures, workshops, guest lecturers and field work.
FOOD SAFETY

POSTGRADUATE CERTIFICATE
Develop management-level expertise for the global food industry.

PROGRAM DESCRIPTION
The program is designed for both professionals currently working in the food sector, and mid-career professionals considering entering it for the first time.

The prescribed courses will help students advance by focusing on the factors that affect food safety systems. They’ll also shed light on factors essential for the production and distribution of food for human consumption.

PROGRAM OBJECTIVE
This is a post-graduate-level program designed for students with a background in science or technology to gain knowledge of food safety. After completing the program, students will have gained an understanding of food safety principles and how they can be applied to their particular area or industry. Graduates from the program are expected to avail of careers in the private and public sectors.

ADMISSION

REQUIREMENTS
A Bachelor’s degree, three-year diploma of technology, or a combination of work experience and formal education acceptable to the Admissions Committee.

HOW TO APPLY
To apply online, go to www.mi.mun.ca/apply.
Applications acceptance is ongoing.

PROGRAM STRUCTURE

THIS ONLINE, THEORY-BASED PROGRAM CONSISTS OF FOUR COURSES, INCLUDING ONE REQUIRED COURSE AND THREE ELECTIVES.

Three electives are chosen from an approved list with at least two electives selected from category A. Learning online will allow students to interact with a virtual community consisting of other food industry professionals and instructors.

REQUIRED COURSE
MIPG 4113 Introduction to Food Safety

ELECTIVES CATEGORY A
MIPG 4102 Food Safety Systems
MIPG 4114 Fundamentals of Canadian Food Laws and Regulations
MIPG 4115 Foodborne Illness and Food Toxicology
MIPG 4116 Food Sanitation

ELECTIVES CATEGORY B
MIPG 4100 Quality Management
MIPG 4104 Quality Assurance in the Food Industry
MIPG 4105 Introduction to Process Control
MIPG 4106 Project Management Fundamentals
MIPG 4107 European Food Law
MIPG 4108 ISO Management Systems

PROGRAM DELIVERY
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.
QUALITY MANAGEMENT

POSTGRADUATE CERTIFICATE
Learn advanced management strategies that apply to any industry or sector.

PROGRAM DESCRIPTION
In this program students will learn specifics about quality management, project management, quality assurance and production management. Students will gain an understanding of important management principles and how they can be applied to their particular area of interest.

PROGRAM OBJECTIVE
This is a post-graduate-level program designed to provide an understanding of quality management practices and how they apply to a particular industry.

ADMISSION

REQUIREMENTS
A Bachelor’s degree, three-year diploma of technology, or a combination of work experience and formal education acceptable to the Admissions Committee.

HOW TO APPLY
To apply online, go to www.mi.mun.ca/apply. Applications acceptance is ongoing.

PROGRAM STRUCTURE

THIS ONLINE PROGRAM CONSISTS OF FOUR COURSES: ONE CORE AND THREE ELECTIVES.
Learning online will allow students to interact with a virtual community consisting of other quality professionals and instructors.

REQUIRED COURSE
MIPG 4100M Quality Management

ELECTIVES COURSES
MIPG 4101M Technical Communication for Quality Management
MIPG 4102M Food Safety Systems
MIPG 4103M Technical Problem Solving
MIPG 4104M Quality Assurance in the Food Industry
MIPG 4105M Introduction to Process Control Fundamentals
MIPG 4106M Project Management Fundamentals
MIPG 4107M European Food Law
MIPG 4108M ISO Management Systems

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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

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www.mun.ca/regoff/calendar