

FISHERIES AND MARINE INSTITUTE

SECTION CONTENTS

	Personnel	275				
1	The Memorial University of Newfoundland Code	277				
2	Student Code of Conduct	277				
3	School Description	278 278				
4	Description of Degree Programs 4.1 General Degrees 4.1.1 Bachelor of Maritime Studies 4.1.2 Bachelor of Technology	278 278				
5	Admission/Readmission Regulations for Degree Programs 5.1 General Information	279 279				
6	Degree Program Regulations 6.1 Bachelor of Maritime Studies 6.2 Bachelor of Technology	280 281 281				
7	Waiver of Degree Program Regulations					
8	Graduation	281				
9	Appeal of Decisions	282				
10	Course Descriptions	282				
List of Tables						
Table Table	e 1 Bachelor of Maritime Studies - Course Requirements for All Students e 2 Bachelor of Maritime Studies - Additional Requirements Based on Category of Admission e 3 Bachelor of Technology - Engineering and Applied Science Technology Option e 4 Bachelor of Technology - Health Science Technology Option	280 281				

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Fisheries and Marine Institute Advisory Committee

An Industry-based Advisory Committee, established by an Act of Legislature, with members appointed by the Board of Regents of the University, advises the Fisheries and Marine Institute on fisheries and marine related programs and activities.

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Head, School of Ocean Technology

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Manager, Holyrood Marine Base and Marine Services

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Manager, Marine Services

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Division of Academic and Student Affairs

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Dr. C.R. Barrett Library

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Institute Registrar

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Associate Registrar

Smith, N., B.Comm. Memorial

Co-ordinator of Advanced Programs

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Flynn, M., B.B.A. Memorial

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Senior Placement Officer

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International Student Co-ordinator

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Project Leader

Penney, G., B.P.E., B.Ed. Memorial, M.Ed. U.N.B., M.C.P.M. York

School of Fisheries

www.mi.mun.ca/sof/

Head

Bonnell, C., B.Sc., M.M.S. Memorial, Adv. Dip. Marine Institute

Co-ordinator of Programs

Rideout, K., B.Sc., M.M.S. *Memorial*, Graduate Diploma *Marine Institute*

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Manuel, H., B.Sc.(Hons.), M.Sc., M.B.A. Memorial

Director, Centre of Community Based Education

Parsons, C., Chief Mate, Near Coastal

Director, Centre for Fisheries Ecosystems Research

Rose, G.A., B.Sc. Guelph, M.Sc. Laurentian, Ph.D. McGill

Director, Centre for Sustainable Aquatic Resources

Winger, P., B.Sc. Dalhousie, M.Sc., Ph.D. Memorial

Administrative Director, Centre for Fisheries Ecosystems Research

Brown, T., B.Sc., M.M.S. Memorial

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School of Maritime Studies

Head

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Assistant Head

Mercer, R., B.Voc. Ed., M.Ed. Memorial, Master Mariner

Co-ordinator of Programs

Callahan, C., B.Sc., B.Ed. Memorial

Director, Centre for Marine Simulation

Hearn, C., Dip.N.Sci. Marine Institute, Master Mariner

Director, Offshore Safety and Survival Centre

Anstey, F.A., B.A., B.Voc.Ed., Cert. Bus. Adm., M.Ed. Memorial,

Assistant Director, Operations and Administration, OSSC Escott, R.

Assistant Director (Programs) OSSC

Brett, P., B.Sc., B.Ed., M.Sc. Memorial

Manager, Applied Research and Industrial Projects, Centre for **Marine Simulation**

Halfyard, M., B.Sc., M.B.A. Memorial

Manager, SERT

Harnum, C., N.F.P.A. 472, N.F.P.A. 1001 Level III, N.F.P.A. 1002, N.F.P.A. 1003, N.F.P.A. 1041 Level II

School of Ocean Technology

www.mi.mun.ca/departments/schoolofoceantechnology/

Howse, D., Dip. Post Sec. Ed., B.Eng., M. Eng., M.B.A. Memorial, P.Eng.

Co-ordinator of Programs

Ryan, P., Dip. Tech. College Militaire Royale, B. Eng. RMC of Canada, B.Ed., M.E.M. Memorial, P. Eng. CD.

Director, Centre for Applied Ocean Technology

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Academic and Student Affairs

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Breen, C.A., B.Sc., M.Ed. Memorial

Fleet, B., B.A., Dip. Nursing SJGH, B.Voc.Ed., M.Ed. Memorial

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Janes, H., B.A., B.Ed., M.Ed. Memorial

Lawton, C., B.N., M.L.S. Dalhousie

Molloy, C., B.A. Memorial, M. Distance Ed. Athabasca

Walsh, C., B.Sc., B.Ed. Memorial, M.Ed. U.B.C.

School of Fisheries

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Bath, R., B.M.S. Memorial, F.M.1

Bonnell, C., B.Sc., M.M.S. Memorial, Adv. Dip. Marine Institute

Bonnell, L., B.Sc., B.Ed., M.Sc. Memorial

Blundon, J., B.Sc., B.Ed. Memorial, Grad.Dip.Tech. Marine Institute, M.M.S. Memorial

Coughlan, G., B.P.E. Memorial, M.EDes. (Environmental Science) University of Calgary

Couturier, C.F., B.Sc. New Brunswick, M.Sc. Dalhousie Durnford, E., Dip.Tech. Marine Institute, B.Sc., B.Ed., M.Sc.

Memorial

Dwyer, C., Dip. of Food Technology Marine Institute Fortune, S., B.Sc., B.Ed. (Post-Secondary) Memorial, Adv. Dip. Food Safety, Marine Institute

Gibbons, R.C., B.A., M.M.S. *Memorial*, F.M.1 Grant, S., B.Sc. *Wilfred Laurier*, M.Sc. Trent, Ph.D. *Memorial* Greenham, J., FMI, Master Near Coastal, Dip Nautical Science Marine Institute, B.M.S. Memorial

Harnum, G., Dip.Tech. Marine Institute, B.Tech., Post Grad. Cert. (Post-Secondary) Memorial, Grad. Cert. (Int. Food Law & Regs.), M.Sc. Michigan State

Hayter, R., Dip.Tech. College of Fisheries, B.Tech. Memorial Kennedy, E., Dip.Tech. College of Fisheries, B.Tech. Memorial Mercer, K.B., B.Sc. Dalhousie, Graduate Dip. Marine Institute, M.M.S. Memorial

Milley, N., B. A., B.Ed., M.M.S. Memorial

Morris, P., FM1

Onodenalore, C., B.Sc., M.Sc. University of Benin, B.Ed, M.Sc, Ph.D. Memorial

Perry, J., B.Sc. (Nutrition), B.Ed. (Post-Secondary) Memorial, Adv. Dip. Food Safety Marine Institute

Perry, R.A., B.A. (Ed.), B.A., M.A., M.B.A. Memorial

Pippy, M.C., B.Sc., B.Ed., M.A.Sc. Memorial

Pittman, R., M.C.P.M. York, O.N.2, F.M.1

Pretty, R., B.Sc., B.Ed.(Post-Secondary) Memorial, Adv. Dip. Food Safety Marine Institute

Rideout, K., B.Sc. Memorial, Graduate Diploma Marine Institute, M.M.S. Memorial

Robertson, K., B.Sc., Adv.Dip., B.Ed., M.A.Sc. Memorial, Cert. Env. Man. Toronto

Samson, L., Dip. Food Technology Marine Institute

Strickland, J., Dip. Tech. Marine Institute, B.Sc., M.B.A. Memorial Trenholm, R., Dip. Ag. Eng. NSAC, B.Eng. TUNS, M.Sc. Memorial Westcott, J.D., B.Sc. Memorial, B.Sc. (Agriculture) Dalhousie/ NSAC, Ph.D. UPEI

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School of Maritime Studies

Dutton, C. R., B.Eng., B.Voc.Ed., M.Eng. Memorial, (School Head) Alexander, J., N.F.P.A. 1001 Level I & II, NFPA 1003, NFPA 1041 Level 1

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Antony, J., BTEC Higher National Diploma in Nautical Science Blackpool & Fylde College (UK), Master Mariner Unlimited Maritime and Coastguard Agency (UK), Post Graduate Diploma in Logistics and Shipping Indian Institute of Logistics (India)

Azizan, H., Dip.Tech. College of Fisheries, B.Voc.Ed., M.Ed., M.M.S. Memorial, M.M.M. Dalhousie, M.Sc. Plymouth, Master Mariner

Bae, C., B.Eng., M.Eng. Inha University

Baker, K., Dip.Tech. College of Fisheries

Barron, R., Dip. Tech. Nautical Science Marine Institute, Watchkeeping Mate

Blackmore, D., B.Voc, Ed. Memorial, F.M.1

Brake, D. J., B.Sc., B.Ed., B.A., M.Ed. Memorial

Brazil, D., Dip.Tech. Marine Institute, Master Mariner Brown, H.

Budgell, D. B.Sc., B.A., B.Ed., M.Ed.(Post -Secondary), M.Ed. Memorial

Butler, K., B.Sc., B.A., B.Ed., Dip. Adult Ed., M.Ed. Memorial Callahan, C., B.Sc., B.Ed. Memorial

Clarke, C., Dip. Tech. Marine Institute, Master Intermediate Voyage

Clouter, E., B.A., B.Ed. Memorial, M.Ed. Minnesota

Courage, A., B.Eng., M.A.Sc., P.Eng.

Cross, J., Dip. Tech. Georgian, B.Sc. Queens, M.Eng. Memorial, P.Eng. O.N.II

Curtis, S.L., Dip.Tech. Marine Institute, Dip.Voc.Ed., B.Tech. Memorial

Dohey, P., B.Ed. Memorial, M.Sc. University of Lester

Donnelly, D., Master Mariner

Doyle, T., NFPA 472, NFPA 1001 Level 1 & II, NFPA 1002, NFPA 1003, NFPA 1041 Level 1 & II

Drake, S., Master Mariner

Dubuc, S., B.A.(Hons.) Guelph, Dip N.Sci. Marine Institute, Master Mariner

Dunphy, L., CD2, Cert.Adv. Instructor Methodology St. Mary's

Dwyer, D., Diploma of Nautical Science, Master Intermediate Voyage

Ennis, J., Dip. Tech. College of Fisheries, Master Mariner Fewer, J., Restricted Watchkeeping Mate, FM III, Marine Diesel Mechanic, NFPA 472, NFPA 1001 Levels I & II

Fiander, G., Dip.Tech. *Marine Institute*, Master Mariner

Francis, D., Marine Engineer (1st Class), Dip. Ed. (Post-Secondary), B.M.S, B.Ed. (Post-Secondary), M.M.M. *Memorial*, Dip. Marine Surveying *Lloyds Maritime Academy*

Freeborn, A., Marine Engineer (1st class)

Gallant, T., NFPA. 472, NFPA 1001 Level I-III, NFPA 1002, NFPA 1003, NFPA 1041 Level I & II

Goulding-Harnum, S., B.Ed. *Memorial*, NFPA 472, NFPA 1001 Level I & II, NFPA 1041 Level I & II, NFPA 1021 Level I - IV

Hanlon, C., Dip.Tech. Marine Engineering *Marine Institute*, Marine Engineer (2nd Class Motor)

Hargreaves, B., Fishing Master I, Master Mariner Harvey, G.

Hopkins, C., B.M.S. Memorial, Dip.Tech. (Nautical Science) Marine Institute, Master 500 GT, First Mate Intermediate Voyage, NFPA 1001 Fire Fighter 2, ISO-FDSOA Pro Board

Kalra, C., Master Mariner, M.C.S.E., M.B.A. *Tamilnadu University*, *India*

Kavanagh, T., Dip.Tech. *Marine Institute*, Marine Engineer, (3rd class motor, 4th class steam, 4th class power)

Kearney, G., Dip. Tech. *Marine Institute*, Dynamic Positioning Certificate *Nautical Institute*, Master Mariner

Kennedy, J., Master Mariner

Kiash, R. S., Dip.Voc.Ed. *Memorial*, C.Eng., Marine Engineer (1st class motor & steam), C.E.T.

Lacour, D., B.Comm. Memorial, NFPA Level 2 Firefighting Cert. University of Oklahoma, Paramedic I

Lambert, F. W., Dip. Tech *Marine Institute*, Master Mariner, B.Ed. (Post-Secondary) *Memorial*

Marshall, M., B.Eng., M.Eng., Ph.D. Memorial, P.Eng.

Martin, P., Master Mariner

McCulloch, C., B.A. St. Francis Xavier, M.A., DPW Memorial
 Meadus, F., CD, Communications Specialist, Dip. Post Sec. Ed. Memorial, Cert. Occupational Health & Safety College of the North Atlantic

Mercer, R., B.Voc.Ed., M.Ed. *Memorial*, Master Mariner Molloy, G.

Mueller, U., Master Mariner

Norris, M., Dip. Tech. Technical Marine Engineering *Marine Institute*, Third Class Marine Engineer

Noseworthy, D., Red Seal Certification (Machinist & Millwright) O'Brien, I., Dip. Tech. *Marine Institute*

O'Keefe, T., Dip. Tech. Marine Institute, B.Tech., B.Ed., M.Ed. Memorial

Oliver, J., Dip. Post Sec. Ed. *Memorial*, Primary Care Paramedic, Emergency Medical Responder Instructor Trainer

O'Quinn, B., N.F.P.A 472, N.F.P.A 1001 Level I & II, N.F.P.A. 1002, N.F.P.A. 1003, N.F.P.A. 1041 Level 1

Parsons, J.R., Dip. Tech. College of Fisheries, Master Mariner, B.M.S., Cert. Business Administration, B.Ed., M.C.P.M. Memorial, M.Sc. Maine Maritime, FCIP., CRM. University of Toronto/Insurance Institute of Canada, Ph.D. University of Plymouth

Peach, A., B.A. Memorial, M.A. Toronto

Pelley, J., B.Sc., B.Ed. Memorial

Piercey, H., NFPA 472, NFPA 1001 Level I & II, NFPA 1002, NFPA 1041 Level I & II, NFPA 1021 Level I-4

Pond, J., B.Eng., B.Ed. (Post-Secondary) Memorial

Pynn, W., Dip. Tech. Marine Institute, MBA University of Warwick Ryan, J. C., B.P.E., B.Ed., B.Sc., B.A. Memorial

Shanahan, J., Dip. Voc.Ed. *Memorial*, Marine Engineer (4th Class), Millwright (Indust.Mech.) Interprovincial Cert.

Short, C., Master Mariner

Small, G., B.Sc., B.Ed., Memorial, FM

Snow, R., N.F.P.A., Level 3 Firefighting Cert. *University of Oklahoma*

St. Croix, J., B.A., B.Ed., M.Ed., M.A. Memorial

Stapleton, G., NFPA 472, NFPA 1001 Level I-III, NFPA 1002, NFPA 1003, NFPA 1041 Level I-III

Stone, B., B.Eng., M.Eng., M.B.A. Memorial

Strowbridge, K., Dip. Tech. (MESD), Dip. Tech. (NARC) Marine Institute

Tucker, J., B.Eng., M.Eng. *Memorial*, P.Eng.; Recipient of the President's Award for Distinguished Teaching, 2012

Turpin, D., Marine Engineer (2nd Class Steam), Power Engineer (4th Class)

Wareham, M., Dip. Tech. (MESD), Dip. Tech. (NA) Marine Institute, B.Eng. Memorial

Webber, K., Heavy Oil Operations Technician Certificate, 4th Class Power Engineer, Gas Processing Operations *Lakeland College*, Certificate in Occupational Health and Safety *University of New Brunswick*

White, A., Dip.Tech. *College of Fisheries*, B.Tech., B.M.S., B.Ed.(Post-Secondary) *Memorial*, Marine Engineer (1st Class Motor, 4th Class Steam)

Williams, G., Dip. Tech. *College of Fisheries*, Master Mariner Woolridge, D., B.Sc., B.Ed., M.Ed. *Memorial*

School of Ocean Technology

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Howse, D., Dip. Post Sec. Ed., B.Eng., M. Eng., M.B.A. *Memorial*, P.Eng. (School Head)

Barajas M, B.Sc., M.Sc., Ph.D. *Polytechnique Montreal* Batten, C., Dip. Electronics Tech *College of the North Atlantic* Bishop, G., Dip. Tech. *Marine Institute*, B.Tech., M.Env.Sci.

Brett, P., B.Sc., B.Ed., M.Sc. Memorial

Cartwright, D., M. Eng. University of New Brunswick

Chaulk, C., B. Eng., B.Ed., M.Ed. Memorial

Coronado, C., B.Śc., M.Sc., Ph.D. *Ecole Polytechnique de Montreal*, LL.M. *University of Turin*, CSSBB

Elliott, P., B.Sc., B.Ed., Dip. Tech. Ed., M.Ed. Memorial

Gray, C., Dip. Tech. College of the North Atlantic

Halfyard, P., Cert. Tech. College of Fisheries, Cert. Tech. Marine Institute

Haynes, D., Dip. Tech. College of Trades and Technology, B.Eng. Memorial, P.Eng.
 Jewer, J., B.Comm.(Co-op)(Hons.) Memorial, M.A.Sc., Ph.D.

University of Waterloo

Keats, C., Dip. Tech. Marine Institute, B. Tech., M.Env.Sci. Memorial

Matchem, J., B. Eng., B.Ed. Memorial

Matchim, R., B.Eng. Memorial

Mekeever, T.J., B.Sc., M.Sc. Memorial, Graduate Diploma Marine Institute

Piercey, V., B.Eng Memorial, P.Eng.

Ragunathan, J., B.Eng. Madurai Kamaraj University, India, M.Eng. Bharathidasan University, India

Roche, R., B.Eng. Memorial

Ryan, P., Dip Tech., B. Eng. College Militaire Royale du Canada, B.Ed., M.E.M. Memorial, P. Eng., CD

Sekaran, K., B.E. University of Madras, M.Eng. Memorial Smith, W., Cert. Red Seal, Dip. Tech. College of Fisheries, B. Tech, Cert. Voc. Ed. Memorial, C.E.T.

St-Hilaire, D., B.A. *Université Laval*, Ph.D. *Memorial* VanderVoort, R., B.Sc. *Windsor*

Venkatraman, S., B.Eng. Bharathidasan University, India, M.Eng. SASTRA University, India, B.Ed. Memorial

Way, B., B.Eng., M.B.A., M.Ed. *Memorial*, P.Eng.

Wells, D., Dip. Tech., B. Eng., B.Ed., M.T.M., P.Eng. Memorial White, C., B. Eng. QUT Australia, M.Sc.(Eng) Cranfied University, United Kingdom, M.Sc. UNSW, CPEng. (Australia)

Wu, L., B.Eng. Northwestern Polytech University, B.Éd., M.Eng. Memorial

1 The Memorial University of Newfoundland Code

The attention of all members of the University community is drawn to the section of the University Calendar titled **The Memorial University of Newfoundland Code**, which articulates the University's commitment to maintaining the highest standards of academic integrity.

2 Student Code of Conduct

Memorial University of Newfoundland expects that students will conduct themselves in compliance with University Regulations and Policies, Departmental Policies, and Federal, Provincial and Municipal laws, as well as codes of ethics that govern students who are

members of regulated professions. The *Student Code of Conduct* outlines the behaviors which the University considers to be non-academic misconduct offences, and the range of remedies and/or penalties which may be imposed. Academic misconduct is outlined in *UNIVERSITY REGULATIONS* - Academic Misconduct in the University Calendar.

For more information about the Student Code of Conduct, see www.mun.ca/student/conduct/conduct.php.

3 School Description

The Fisheries and Marine Institute was established in 1964 as the College of Fisheries, Navigation, Marine Engineering and Electronics. It became affiliated with the University in 1992 and since then has continued to grow as a world-class centre of marine technology and education. The official name is the Fisheries and Marine Institute of Memorial University of Newfoundland, but it is commonly known as the Marine Institute.

The main campus of the Marine Institute overlooks the city of St. John's from within Pippy Park, which has extensive hiking trails and recreational facilities. This building houses a flume tank, a seafood processing plant, freshwater aquaculture research and development facilities, and extensive marine simulation facilities. The Dr. C. R. Barrett Library, located at this campus, houses one of Canada's largest marine-related collections. In addition, the Institute manages the Offshore Safety and Survival Centre in Foxtrap, the Safety and Emergency Response Training (SERT) Centre in Stephenville, a regional fisheries and marine training center in Lewisporte, and a marine base on the south side of St. John's harbour and another in Holyrood.

The Marine Institute provides a full range of programs focussing on fisheries and marine science and technology. In addition to undergraduate and graduate degrees, the Institute offers advanced diplomas, diplomas of technology, and technical and vocational certificates. The Institute also runs a variety of short courses and industrial response programs.

All programs and courses are designed to provide students with the knowledge and skills required for success in the workforce. The Institute seeks the advice of industrial program advisory committees in the ongoing development and review of programs. Whenever appropriate, it submits programs for national accreditation, providing graduates with mobility in professional employment.

3.1 The Marine Institute Students' Union (MISU)

The Marine Institute Students' Union (MISU) was incorporated in 1991. It is committed to the provision of services to students as well as representing the student body at the national, provincial and institute levels in matters affecting the quality of student life.

The MISU is a prominent member of The Canadian Federation of Students (CFS). The CFS provides a voice for students at over 70 universities, colleges, and technical institutes across Canada including more than 32,000 students in Newfoundland and Labrador. The national body has a strong presence in Ottawa and ensures students' opinions are known on Parliament Hill. Services provided by CFS include the National Student Health Network, student saver cards, Student Work Abroad Program (SWAP), International Student Identity Cards (ISIC), and Travel Cuts. The CFS Newfoundland and Labrador (CFS-NL) ensures student's opinions are known in the Provincial House of Assembly. The MISU takes part in the CFS bi-annual conferences to discuss and form policies on behalf of students.

Within the Institute, the MISU has representation on a number of committees, including the Marine Institute Industry Advisory committee and the Academic Council, where the Union members ensure that student well-being is at the forefront in all policies affecting student life. The MISU administers the student health plan. Many social and recreational activities are planned and sponsored by the MISU including Winter Carnival held during the last week of January. Profits from the social activities are returned to the students in the form of scholarships. The MISU manages and maintains the student lounge -The Mariner's Lounge.

4 Description of Degree Programs

Students must meet all regulations of the Fisheries and Marine Institute in addition to those stated in the University's general regulations. For information concerning fees and charges, admission/readmission to the University, and general academic regulations (undergraduate), refer to *UNIVERSITY REGULATIONS*.

For information about non-degree programs and upgrading opportunities refer to www.mi.mun.ca.

4.1 General Degrees

The Marine Institute offers two undergraduate degrees. For specific details on each degree refer to the appropriate **Degree Program Regulations**. The courses in the program are available fully by distance and select courses are available on campus.

4.1.1 Bachelor of Maritime Studies

The Bachelor of Maritime Studies program prepares graduates for career advancement in the maritime and related industries. It is designed for students who have graduated from accredited, or Transport Canada approved, diploma of technology programs in the marine fields. The program is also available to professional mariners, professional fish harvesters and certain Canadian Forces (Naval Operations) personnel. Courses in the program provide the student with an introduction to human resource and business management concepts, and the social contexts in which their careers will be based. The program consists of 39 credit hours in addition to work completed in a diploma program and can be taken on a full-time or part-time basis.

4.1.2 Bachelor of Technology

The Bachelor of Technology program prepares graduates for career advancement in health science technology or engineering/applied science technology industries. It is designed for students who have graduated from an accredited diploma of technology program that is applicable to one of two optional areas. Courses in the program provide the student with an introduction to human resource and business management concepts, and the social contexts in which their careers will be based. The program consists of 39 credit hours in addition to work completed in a diploma program and can be taken on a full-time or part-time basis.

The optional areas are:

- Engineering and Applied Science Technology Option, which is normally chosen by students who have an engineering/applied science technology diploma.
- · Health Sciences Technology Option, which is normally chosen by students who have a health sciences technology diploma.

5 Admission/Readmission Regulations for Degree Programs

In addition to meeting the admission/readmission requirements for the University students must also meet the admission/readmission requirements for the Marine Institute. See **UNIVERSITY REGULATIONS** - Admission/Readmission to the University (Undergraduate) for University requirements.

5.1 General Information

- All application forms must be submitted to the Admissions Office, Office of the Registrar, Memorial University of Newfoundland, St. John's, NL, A1C 5S7.
- 2. For the purpose of satisfying the requirements of *UNIVERSITY REGULATIONS* Year of Degree and Departmental Regulations All Other Faculties and Schools, Pre-Bachelor of Maritime Studies and Pre-Bachelor of Technology students will normally follow regulations in effect in the academic year in which the student first completes a course(s) in the Bachelor of Maritime Studies or Bachelor of Technology program as a Pre-Bachelor of Maritime Studies or Pre-Bachelor of Technology student. However, the student may elect to follow subsequent regulations introduced during the student's tenure in a program.
- 3. Students may not obtain both a Bachelor of Maritime Studies and a Bachelor of Technology degree based upon completion of the same diploma of technology.

5.2 Admission Requirements for Applicants to the Bachelor of Maritime Studies Program

1. An applicant must submit a form for admission/readmission to the University. This application must include all required documentation including proof of the diploma or certificate required for admission in a specific category.

2. Categories for admission to the Bachelor of Maritime Studies

Applicants must meet the general admission/readmission requirements of the University and be eligible for admission to the Bachelor of Maritime Studies program in one of the following categories:

- Category A: applicants holding a diploma from the Marine Institute in nautical science, marine engineering technology, naval architecture technology or marine engineering systems design technology,
- Category B: applicants holding a Canadian Technology Accreditation Board accredited, or Transport Canada approved, diploma
 in marine engineering technology or nautical science,
- Category C: applicants holding a Canadian or non-Canadian diploma similar to an accredited or Transport Canada approved
 Marine Institute diploma in nautical science, marine engineering technology, naval architecture technology or marine
 engineering systems design technology,
- Category D: applicants holding a Transport Canada Certificate of Competency at the Master Mariner, Fishing Master First Class or Engineering First Class level or equivalent,
- Category E: applicants holding a Transport Canada Certificate of Competency at the Master, Intermediate Voyage level or equivalent,
- Category F: applicants holding a Transport Canada Certificate of Competency at the Engineering Second Class level or equivalent,
- Category G: applicants who have Canadian Forces (Naval Operations) training of a type and at a level acceptable to the Admissions Committee.
- 3. Applications to the program will be considered by the appropriate admissions committee(s).
- 4. In accordance with the UNIVERSITY REGULATIONS Residence Requirements Second Degree, students completing the Bachelor of Maritime Studies program, as a second degree, must complete a minimum of an additional 9 credit hours beyond a first degree and the work completed as required for admission to this degree.

5.3 Admission Requirements for Applicants to the Bachelor of Technology Program

- 1. An applicant must submit a form for admission/readmission to the University. This application must include all required documentation including proof of the diploma or certificate required for admission in a specific category.
- 2. Categories for admission to the Bachelor of Technology Program

Applicants must meet the regular admission requirements of the University and be eligible for admission in one of the following categories:

- Category A: applicants holding a diploma of technology accredited by the Canadian Medical Association (CMA),
- Category B: applicants holding a diploma of technology in engineering/applied science technology accredited by the Canadian Technology Accreditation Board (CTAB),
- Category C: applicants holding a diploma of technology comparable to a Marine Institute or College of the North Atlantic threeyear CTAB accredited diploma in engineering/applied science technology,
- Category D: applicants holding a diploma of technology comparable to a College of the North Atlantic three-year CMA accredited diploma.
- 3. Upon acceptance into the program, students will be admitted to one of the two options: the Engineering and Applied Science Technology Option or the Health Sciences Technology Option. Students may be permitted to change their option with the approval of the Marine Institute Committee on Undergraduate Studies.
- 4. Applications to the program will be considered by the appropriate admissions committee(s).
- 5. In accordance with the UNIVERSITY REGULATIONS Residence Requirements Second Degree, students completing the Bachelor of Technology program, as a second degree, must complete a minimum of an additional 9 credit hours beyond a first degree and the work completed as required for admission to this degree.

6 Degree Program Regulations

6.1 Bachelor of Maritime Studies

- Students must complete 39 credit hours in addition to the work which was required under their category of admission.
- The required and elective courses are listed in Table 1 Bachelor of Maritime Studies Course Requirements For All Students. These courses may have prerequisites which have to be met.
- Students admitted to the program in certain categories may have to complete additional requirements. These are listed in **Table 2 Bachelor of Maritime Studies Additional Requirements Based on Category of Admission**.
- When transfer credit has been granted for a course(s) taken to satisfy the requirements for admission students must take an additional elective University course(s).
- To meet the academic requirements for a Bachelor of Maritime Studies a candidate shall successfully complete the following program with a minimum overall average of 60% and a minimum numeric grade of 50% in each course required for the degree.
- Students must take 39 credit hours with 21 credit hours from the required courses and 18 credit hours from the electives.
- At least one elective must be chosen from each of the groups A and B.

Table 1 Bachelor of Maritime Studies - Course Requirements for All Students

Required Courses	Group A Electives	Group B Electives
3 credit hours in English at the 1000 level MSTM 4001 MSTM 4004 MSTM 4040 MSTM 4060 MSTM 4090 MSTM 410A/B	Business 1101 or 2102 Business 4000 MSTM 4002 MSTM 4005 MSTM 4011 MSTM 4012 MSTM 4013 MSTM 4020 MSTM 4050 Statistics 2500	Economics 2010 Economics 2020 Economics 3030 Economics 3360 Geography 3510 Geography 4410 MSTM 4014 MSTM 4030 Philosophy 2571 Political Science 3210 Political Science 4200 Sociology 2120 Sociology 3120

Table 2 Bachelor of Maritime Studies - Additional Requirements Based on Category of Admission

Category of Admission	Additional Requirements	
A: Students holding a diploma from the Marine Institute in nautical science, marine engineering technology, naval architecture technology or marine engineering systems design technology.	No additional requirements.	
B: Students holding a Canadian Technology Accreditation Board accredited, or Transport Canada approved, diploma in marine engineering technology or nautical science.		
C: Students holding a Canadian or non-Canadian diploma similar to an accredited or Transport Canada approved Marine Institute diploma in nautical science, marine engineering technology, naval architecture technology or marine engineering systems design technology.	May have to complete additional requirements.	
D: Students holding a Transport Canada Certificate of Competency at the Master Mariner, Fishing Master First Class or Engineering First Class level or equivalent.	No additional requirements, with the possible exception of course prerequisites.	
E: Students holding a Transport Canada Certificate of Competency	Either:	
at the Master, Intermediate Voyage level or equivalent.	Transport Canada - Ship management 093 (Master Mariner) or	
	 Both of: Marine Institute Business and Organizational Management 3114 and Marine Institute Business and Organizational Management 3204. The prerequisite(s) for Business and Organizational Management 3204 will be waived. 	
F: Students holding a Transport Canada Certificate of Competency	Transport Canada - Applied Mechanics (1st Class)	
at the Engineering Second Class level or equivalent.	Transport Canada - Thermodynamics (1st Class)	
	Transport Canada - Electrotechnology (1st Class)	
G: Students who have Canadian Forces (Naval Operations) training of a type and at a level acceptable to the Admissions Committee.	May have to complete additional requirements.	

6.2 Bachelor of Technology

Students must complete 39 credit hours in addition to the work which was required under their category of admission.

The required and elective courses are listed in Table 3 Bachelor of Technology - Engineering and Applied Science Technology Option and Table 4 Bachelor of Technology - Health Science Technology Option. These courses may have prerequisites which have to be met.

When transfer credit has been granted for a course(s) taken to satisfy the requirements for admission, students must take an additional elective(s) in the Bachelor of Technology program.

To meet the academic requirements for a Bachelor of Technology a candidate shall successfully complete the program with a minimum overall average of 60% and a minimum numeric grade of 50% in each course required for the degree.

6.2.1 Bachelor of Technology - Engineering and Applied Science Technology Option

- Students must take 39 credit hours with 24 credit hours from the required courses and 15 credit hours from the electives.
- At least one elective must be chosen from each of the groups A and B.

Table 3 Bachelor of Technology - Engineering and Applied Science Technology Option

Required Courses	Group A Electives	Group B Electives
3 credit hours in English at the 1000 level MSTM 4010 MSTM 4020 MSTM 4040 MSTM 4060 MSTM 4090 MSTM 410A/B Statistics 1510 or 2500	Business 1101 or 2102 Business 4000 Economics 3360 MSTM 4011 MSTM 4012 MSTM 4013 MSTM 4017 MSTM 4050 MSTM 4070	Economics 2010 Economics 2020 Economics 3080 Geography 4410 MSTM 4014 MSTM 4015 MSTM 4016 MSTM 4030 Philosophy 1100 Philosophy 2571 Religious Studies 3830 Sociology 2120

6.2.2 Bachelor of Technology - Health Science Technology Option

- Students must take 39 credit hours with 18 credit hours from the required courses and 21 credit hours from the electives.
- At least one elective must be chosen from each of the groups A, B, and C.

Table 4 Bachelor of Technology - Health Science Technology Option

Required Courses	Group A Electives	Group B Electives	Group C Electives
3 credit hours in English at the 1000 level MSTM 4040 MSTM 4060 MSTM 4090 MSTM 410A/B Statistics 1510 or 2500	Business 1101 or 2102 Business 4000 Economics 3360 MSTM 4011 MSTM 4012 MSTM 4013 MSTM 4017 MSTM 4050	Economics 2010 Economics 2020 Economics 3080 Geography 4410 MSTM 4014 MSTM 4015 MSTM 4016 MSTM 4030 Philosophy 1100 Philosophy 2551 or 2552 or 2553 Philosophy 2571 Religious Studies 3830 Sociology 2120	Biology 2040 or 2041 Nursing 3023 Nursing 4701 Psychology 2010 Psychology 2011 Psychology 2012 Psychology 2800 Sociology 2110

7 Waiver of Degree Program Regulations

Students requesting waiver of University academic regulations should refer to **UNIVERSITY REGULATIONS** - **General Academic Regulations** (**Undergraduate**) - **Waiver of Regulations**. Every student also has the right to request waiver of degree program regulations.

7.1 General Information

- The Marine Institute reserves the right in special circumstances to modify, alter, or waive any Marine Institute regulation in its
 application to individual students where merit and equity so warrant, in the judgement of the Committee on Undergraduate Studies
 of the Marine Institute.
- Students requesting a waiver of a Marine Institute regulation must submit their request in writing to the head of the program who will
 forward a recommendation to the Chair of the Committee on Undergraduate Studies of the Marine Institute. Medical and/or other
 documentation to substantiate the request must be provided.
- Any waiver granted does not reduce the total number of credit hours required for the degree.

8 Graduation

Upon meeting the qualifications for any of the degree programs of the Fisheries and Marine Institute a student must apply by the appropriate deadline date to graduate on the prescribed "Application for Graduation " form. This form may be obtained on-line at the Memorial Self Service at www3.mun.ca/admit/twbkwbis.P_WWWLogin. Additional information is available from the Office of the Registrar at www.mun.ca/regoff/graduation/apply_grad.php.

9 Appeal of Decisions

Any student whose request for waiver of Marine Institute regulations has been denied has the right to appeal. For further information refer to *UNIVERSITY REGULATIONS* - General Academic Regulations (Undergraduate) - Appeal of Decisions.

10 Course Descriptions

All courses of the Marine Institute degree programs are designated as MSTM (Maritime Studies/Technology Management).

4001 The Organization and Issues of Shipping will provide students with knowledge of the economic shipping environment with respect to Canada. The course will develop an understanding of basic trade theory, patterns of trade and sea routes, commodities traded by sea, and the organizational structure of shipping companies.

CR: the former Engineering 8065; Maritime Studies 4001

4002 The Business of Shipping will provide students with an understanding of financial statements, costs, revenues and financial performance of shipping companies as well as computing, voyage and annual cashflows. The course will develop an understanding of marine insurance and forecasting, and risk management.

PR: MSTM 4001

4004 Marine Environmental Management will introduce students to the requirements for the safe management of the marine environment. The course will introduce major environmental problems and identify the major threats to the marine environment. It will provide a working knowledge of these threats and consider the possible counter measures that may be employed by employees in the marine industry.

4005 Trends and Issues in International Shipping will provide students with an understanding of how regulatory bodies and their legislation have evolved to affect the modern seafarer trading internationally. This course will develop an understanding of the various rules and regulations dealing with Classification, ISM, MAPROL, SOLAS and SIRE inspections which have to be dealt with on a daily basis at sea.

4010 Assessment and Implementation of Technology (formerly Technology 4010) examines the effects of technology on the physical, socioeconomic, historic, cultural and aesthetic environments. The course also addresses relevant legislation, the generation and evaluation of project/product alternatives, and the prediction, verification and mitigation of technological effects.

CR: the former Technology 4010

4011 Introduction to Intellectual Property and its Management is an introductory course to the management of Intellectual Property Rights (IPRs). This course will cover the philosophical rationale for intellectual property rights, its technical and legal considerations, its implications to the development of science and technology and its economic impact in society.

4012 Occupational Health and Safety Legislation and Management is an introduction to occupational health and safety issues in a technical/industrial context. Students will gain a knowledge and understanding of the legislative framework surrounding occupational health and safety, the assignment of responsibilities in the workplace, the management of occupational health and safety in the workplace and the importance of establishing a positive safety culture.

4013 Structure and Functions of Technology-based Organizations focuses on the emergence of technology-based companies with an emphasis on how we can implement methods to increase their organizational effectiveness. This course will concentrate on the integration of three basic frameworks that are integral to production and performance in the 21st century. It will introduce students to the concepts and processes materializing in a technological milieu. This course also deals with the study of technological economics, organizational progression, structural configurations and operations, and universal and contemporary approaches to organizational design. In addition it will examine the challenges of change that face highly dynamic industries: individual & organizational change, technological change, and national & global change. This course will also examine specialized topics in structure evolution for technology-based organizations with an emphasis on the need for adaptability, innovation & global communications.

4014 Technology and the Environment will help students critically examine technology and the environment and how the two are linked. Topics may include how technology is both the cause of and solution to many environmental problems, the greenhouse effect, renewable energy vs. fossil fuels, recycling vs. landfills, the efficiency paradox, geo-engineering, and other select current topics.

4015 Technological Entrepreneurship surveys technological entrepreneurship via examples of both successful and failed businesses in technological fields. By examining cases of entrepreneurship, this course will

examine challenges and opportunities facing technological entrepreneurs.

4016 Technological Problem Solving will introduce students to TRIZ, a powerful set of tools and algorithms developed specifically for analyzing and solving technological problems. TRIZ was developed by people with a technical background for those with a technical background. While TRIZ was developed for inventing and solving technical problems, the tools and approaches can be used to understand and solve virtually any solvable problem.

4017 Technical Operations Management introduces students to the area of operations management as it pertains to technology companies. Operations is generally considered the process by which an organization converts inputs such as labour and material into outputs such as goods or services. This course will examine how to manage the processes with a particular emphasis on operations in technology-based companies. Topics may include operations based strategy, processes and technology, capacity and facilities planning, and supply chain management.

4020 Economic Management for Technologists (formerly Technology 4020) provides an introduction to the economics of technological projects. Students will study the mathematics of money, cost composition, and project evaluation, including cost comparison. They will also learn to analyse projects for decision making, including risk assessment and replacement analysis. In addition, they will learn to use suitable criteria for project selection, and to conduct sensitivity analysis.

CR: Engineering 4102; the former Technology 4020

4030 Technology in the Human Context (formerly Technology 4030) examines technology in the historical context and technology in the modern era. Students will discuss human insights, innovation, the interactions between development and technology transfer, ethics and professionalism and how to develop a technology value system.

CR: the former Technology 4030

4040 Project Management for Technologists (formerly Technology 4040) will introduce the student to the interdisciplinary field of project management. The course covers the interpersonal skills necessary to successfully lead or work effectively within a project team as well as providing an overview of certain planning and scheduling tools and techniques necessary for the planning and monitoring of projects.

CR: the former Technology 4040

4050 Introduction to Quality Management (formerly Technology 4050) will provide students with an understanding of the philosophy and concepts involved in the total quality approach to quality management. The course covers the various tools and techniques used in quality management as well as providing an overview of the role of management.

CR: the former Technology 4050

4060 Advanced Technical Communications will enhance the technical communication skills of students. The course content examines technical writing fundamentals; information gathering, analysis, and documentation; proposal preparation; technical document applications; technical report preparation; graphics preparation; and technical presentations. The course will provide students with the knowledge and skills necessary to develop proposals, reports, and presentations for technical projects.

4070 Special Topics in Technology will provide the opportunity for students to maintain technical currency through a review of recent advances in technology and their application to particular technical areas.

4090 Introduction to Technology will provide a broad survey of practices critical to operating a technology-based business. Topics covered may include an introduction to technology management, historical developments in the management of technology, the functions of technology management, and select current topics that are relevant to operating technology-based businesses.

410A and **410B** Technical Project Report (same as the former MSTM 4100 and 4200) is a two-semester linked course based on independent study of a problem involving the management of technology. The subject of study will be decided in consultation with the course instructor and must be approved by a committee. The student will identify a research topic in a specialty area, write a concept paper, develop a proposal and write a report.

CR: the former MSTM 4000, the former MSTM 4100, the former MSTM

4200, the former Technology 4000

OR: must be completed within three consecutive semesters

PR: MSTM 4060