SCHOOL OF GRADUATE STUDIES

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Dean
C.R. Jablonski (Chemistry), B.Sc. *Mass.*, Ph.D. *Calgary*, F.C.I.C.; Winner of President's Award for Outstanding Research, 1984-1985

Associate Dean
N. Golfman (English), B.A. *Alberta*, M.A., Ph.D. *Western Ontario*

Graduate Enrolment Manager
Vacant

Administrative Staff Specialist
N. Fagan

1 General Information and Regulations Governing All Graduate Students

The graduate degrees of Doctor of Philosophy, Master of Applied Social Psychology (Co-operative), Master of Applied Statistics, Master of Arts, Master of Business Administration, Master of Education, Master of Engineering, Master of Music, Master of Nursing, Master of Philosophy, Master of Physical Education, Master of Science, Master of Science in Kinesiology, Master of Science in Medicine, Master of Science in Pharmacy, and Master of Social Work are awarded by the University. Graduate diplomas are offered in Community Health and Clinical Epidemiology, Fisheries Resource Management, Post-Secondary Studies (Health Professional Education) and Post Masters Nurse Practitioner.

Interdisciplinary study is encouraged by the University, and prospective applicants should make enquiries about their interests from all the areas of study concerned. Interdisciplinary programs offered are: Master of Applied Science (Computer Engineering, Environmental Engineering and Applied Science, and Environmental Systems Engineering and Management), Master of Arts and Doctor of Philosophy in Ethnomusicology, Master of Employment Relations, Master of Environmental Science, Master of Marine Studies, Master of Oil and Gas Studies, Master of Science (Aquaculture), Master of Science (Computational Science), Master of Science (Computational Science - Co-operative), Master of Science (Environmental Science), Master of Science and Doctor of Philosophy (Cognitive and Behavioural Ecology), Master of Philosophy (Humanities), and Master of Women's Studies.

Note: *Every candidate in graduate studies shall comply with the General Regulations, the Degree Regulations and any additional requirements of the appropriate Department.*

1.1 Definition and Explanation of Terms Used in this Calendar

1.1.1 Special/Selected Topics Courses

Where a block of courses has been approved under a general heading such as selected topics, special areas, directed readings or like heading, each new course offered from that block of courses shall be approved in advance by the Faculty/School Council (or delegated Graduate Studies Committee). To ensure an orderly use of the courses and non-duplication between course numbers, titles and contents, the Council (or Committee) shall require the same quality and type of information as is needed for the approval of a regular course. *(Consult the School of Graduate Studies or Deputy Registrar for administrative procedures.)*

1.1.2 Dean of Graduate Studies

In all regulations following, reference to "the Dean" refers specifically to the Dean of Graduate Studies.

1.1.3 Credit Hour

A credit hour is the measure used to reflect the relative weight of a given course towards the fulfilment of appropriate degree, diploma, certificate, major, minor, or other program requirements. Normally, a course has a credit value of 3 credit hours. A weight of one credit hour normally means that the course meets for lectures one hour per week for the duration of a semester or two hours per week for the duration of a session. The number of hours of required instruction, outside of lecture time, such as laboratory instruction, tutorials, etc. may or may not impact on the number of credit hours assigned to a particular course and academic units may recommend to the Senate a greater or lesser whole number of credit hours for a particular course.

1.1.4 Graduate Course

1. A graduate course comprises a unit/units of work in a particular subject normally extending through one semester, the completion of which carries credit toward the fulfilment of the requirements for a postbaccalaureate degree, diploma or certificate.
2. Accelerated courses are not normally permissible in graduate programs.
3. Courses required as part of a graduate student's program are known as program courses. Tuition for such courses is covered by the semester fee.
4. Courses which are not required as part of a graduate student's program are known as non-program courses. Students registering for such courses will be required to pay the appropriate per-course fee.

1.1.5 Policy Governing the Auditing of Courses

1. In order to audit any course, an individual must receive permission from the instructor in that course, the supervisor/advisor and the administrative head of the unit in which the course is offered. Matters to be considered shall include class size, impact on students registered for credit and other factors judged relevant by the academic unit; and permission cannot be given until the number of registrations for credit is known.
2. Individuals auditing courses shall limit their participation to that deemed appropriate by the instructor; auditors are not permitted to write formal examinations, nor to have their work formally assessed.
3. Students who require a testamur of audition may request the same from the instructor of the course. Students will not register for audit courses nor will a record of audit courses appear on students' transcripts.

1.1.6 Semester

A semester means a period of approximately 14 consecutive weeks during which the University is in regular session and in which period there are at least 12 teaching weeks as defined by the Senate. Normally the Fall semester commences in early September, the Winter semester in early January, and the Spring semester in early May.

1.1.7 Academic Year

The academic year is from September 1 of one year to August 31 of the following year.

1.1.8 Graduate Student

A graduate student is one who has been admitted to a graduate degree or a graduate diploma program.

A full-time graduate student is one who registers as such, devotes full time to his or her academic program and may not commit more than 24 hours a week working time, including teaching assistant or research assistant duties, to matters other than the degree program.

A part-time graduate student is one who is registered for the duration of a semester and is not classified as full-time.

1.1.9 Visiting Research Student

1. A student who is registered in good standing in a graduate program at another recognized institution who comes to Memorial University of Newfoundland to conduct research under the supervision of Memorial University of Newfoundland faculty members is considered to be a visiting research student. In order to obtain access to University resources, and where applicable, a study permit, such a student will be required to register each semester of their visit for GRAD 9900 using a Course Change Form.
2. To be eligible to register, a visiting research student must submit an Application for Admission form to the School of Graduate Studies, accompanied by: a) a letter from their home institution verifying graduate student status, and b) a letter from the host faculty member confirming the duration of the visit. The student will then be admitted to the School of Graduate Studies to a "non-degree" program.
3. Visiting research students will be exempt from tuition fees. However, all international students will be required, as a condition of registration, to purchase health insurance (contact the International Student Advisor). If a visiting research student wishes to register for a course while at Memorial University of Newfoundland, s/he must meet the University admission requirements and pay the undergraduate per course fee *(see Fees and Charges section of the University Calendar).*

Note: *A student enrolled in a graduate program at another university who wishes to complete courses at Memorial University of Newfoundland for transfer of credit to his/her home institution is not considered to be a Visiting Research Student under this definition. Such students should apply to the Office of the Registrar for admission to the University, and if admitted, will be governed by* ***GENERAL ACADEMIC REGULATIONS****. Fees will be assessed in accordance with the fee schedule for undergraduate courses (see Fees and Charges section of the University Calendar).*

1.1.10 Program

1. A program, whether it comprises courses only, courses and comprehensive examination, or courses, internship, project, thesis research, paper folio is defined for each graduate student in accordance with Departmental and University Regulations. Each program of study is recommended by the appropriate academic unit, and must be approved in writing by the Dean of Graduate Studies before the beginning of the graduate student's second year of study.
2. Responsibility for the administration of the program shall rest with the Dean acting on behalf of the School.

Note: *The following general statements concerning admission and degree requirements should be supplemented by the detailed regulations governing each program.*

1.2 General Regulations

1.2.1 Qualifications for Admission

1.2.1.1 Graduate Diploma Programs

To be considered for admission to a Graduate Diploma program, the minimum requirements will normally be a second-class degree from a university of recognized standing, in an appropriate area of study.

A candidate admitted to a Graduate Diploma program, who has demonstrated to the satisfaction of the Faculty/School/Department concerned their ability to pursue research at the master's level, may be permitted subsequently to transfer his/her candidature to that of a master's in the affiliated program area and will thereafter be awarded only the master's at the end of his/her candidature.

1.2.1.2 Master's Program

To be considered for admission to a Master's program, the minimum requirements will normally be a second-class degree from a university of recognized standing, in an appropriate area of study.

1.2.1.3 Ph.D. Program

To be considered for admission to a Ph.D. program, the minimum requirements will normally be a Master's degree from a university of recognized standing, in an appropriate area of study.

Other students may be considered for admission to a Ph.D. program provided that:

1. they have been registered in a Master's program for a minimum of 12 months, and have demonstrated to the satisfaction of the Faculty/School/Department concerned their ability to pursue research at the Doctoral level. Such transfer should take place no later than the 5th semester of the student's Master's program. (*See* ***UNIVERSITY REGULATIONS*** **- Fees and Charges**); or
2. they hold a Bachelor's degree with Honours, or equivalent, from a university of recognized standing, and that the Faculty/School/Department is satisfied of the students' ability to pursue research at the Doctoral level.

1.2.1.4 Applicants Not Meeting Qualifications

Only in exceptional circumstances, and only upon the recommendation of the Faculty/School/Department concerned, will the Dean consider applicants who do not meet the requirements in 1. or 2. above.

1.2.1.5 English Proficiency Requirements

Since English is the primary language of instruction at this University, all applicants seeking admission to the School of Graduate Studies must possess an adequate knowledge of written and spoken English as a prerequisite to admission. Regardless of country of origin or of citizenship status, applicants will be required to demonstrate proficiency in the English language. This demonstration may take one of the following forms:

1. Successful completion of the equivalent of three years of full-time instruction in an English language secondary institution as recognized by Memorial University of Newfoundland including successful completion of at least two courses in English Language and/or Literature at the Grade XII (or equivalent) level. Please note that these courses must be other than English as a Second Language (E.S.L.) courses.
2. Successful completion of a baccalaureate degree from a recognized University where English is the language of instruction and from

which transfer of credit may be allowed by Memorial University of Newfoundland.

3. Successful completion of a post-graduate degree program at a recognized University where English is the language of instruction and from which transfer of credit may be allowed by Memorial University of Newfoundland.
4. Submission of official results of the Test of English as a Foreign Language (TOEFL) with a paper-based score of 550 (or higher)/computer-based score of 213 (or higher) or Internet-based with a score of 80 (or higher) and the Test of Written English (TWE) with a score of 4 (or higher).
5. Submission of the official results of the Michigan Test of English Proficiency with a score of 85% (or higher).
6. Submission of the official results of the English Language Testing Service (ELTS) Test with a score in Band 7 (or higher).
7. Submission of official results of the Carleton Academic English Language (CAEL) Assessment with a minimum score of between 50 and 60 in each of four bands, with at least 2 band scores of 60.
8. Submission of official results of the Canadian Test of English for Scholars and Trainees (CanTEST) with a Band Level 4.5 in the listening comprehension and reading comprehension sub-tests and a score of 4 in writing.
9. Only in exceptional circumstances and only upon the recommendation of the Department/Faculty/School concerned, will the Dean consider applicants who do not meet one of the requirements listed in 1-8 above.

1.2.1.6 Additional Requirements

Particular Departments/Faculties/Schools may require greater strength in English communicative skills than is indicated by the achievement of minimum scores outlined in 4., 5., 6., 7., and 8. above. Any such additional requirements are detailed in the appropriate section of the Calendar.

1.2.1.7 English Language Requirements Subsequent to Admission

1. Students who have been admitted under **English Proficiency Requirements**, Clauses 4. - 8. above, will be required to take an English language placement test on arrival at Memorial University of Newfoundland. On the basis of the test results, students may be required to complete successfully a course of language study designed to bring their English, in any or all of listening, speaking, reading, and writing, to a level required for graduate studies. A final assessment of the students' proficiency in these areas will normally be made no later than the end of the third semester following their first registration in the School of Graduate Studies. As a result of this assessment, and in consultation with the student's academic unit and the Department of English Language and Literature, there may be a recommendation for termination of the student's program.
2. Notwithstanding **Additional Requirements** above, if a student's department is not satisfied with the student's ability to communicate in English, then the student may be required to complete successfully the relevant component(s) of the course of study referred to in **Additional Requirements**. The department will be required to take this action within three semesters of the student's admission to a graduate program. At the end of this period the department may recommend, but not require this procedure.

Note: *Information regarding the TOEFL program is available from the Educational Testing Service, Box 899, Princeton, New Jersey, U.S.A., 08540; from U.S. embassies or consulates, or from offices of the U.S. Information Services. Information on the Michigan Test of English may be obtained from the Testing and Certificate Service, University of Michigan, 2001 North University Building, Ann Arbor, Michigan, U.S.A. Information regarding the ELTS Test is available from the offices of the British Council, 10 Spring Gardens, London, SW1A 2BN, England.*

1.2.1.8 Foreign Degree Transcripts

Students who have completed undergraduate programs at universities which issue documents in languages other than English or French shall submit notarized English translations of all supporting documentation, including, but not limited to, transcripts, degrees, and diplomas.

1.2.2 Procedure for Admission

1. Application for admission to graduate studies must be made either online or on the appropriate form in duplicate to the School of Graduate Studies. The application must be supported by an official transcript of the applicant's university record. If the applicant is a graduate of another university or college, a copy of the Calendar of that institution must be included upon request.

   Most graduate programs have September start dates; however, some programs accept students for January and/or May admission. Deadlines for submission of applications can be as early as November for the following September; therefore, applicants should inquire about program start dates and application deadlines of the academic program of interest (see www.mun.ca/sgs). Non-Canadian applicants should allow four to six months for processing of official documents with Immigration authorities.
2. Admission to graduate studies shall be upon acceptance by the Dean after assessment of the qualifications of the applicant but no candidate will be admitted unless the academic unit of specialization recommends acceptance along with a proposed program of study and a proposed supervisor or advisor or, where appropriate, a tutor. Successful applicants will be notified by the Dean of Graduate Studies.
3. The applicant may be required to appear for an interview before a final offer of admission is made.
4. It is recommended that the applicant refer to the appropriate section of this Calendar to ascertain if additional testing information or documentation is required when making initial application, e.g. in Social Work, Business Administration, Engineering and Applied Science, History, Music.
5. The University reserves the right to refuse admission to any applicant.

1.2.3 Registration

1.2.3.1 Program Registration

1. All graduate students must be registered in each semester for the graduate program registration appropriate to their discipline (see note) until all academic requirements for the degree have been met, except during periods for which leaves of absence have been granted (see **Leaves of Absence**).

   Note: *e.g. Linguistics 9000, Chemistry 9000 or, in the case of Medicine, Medicine 9900.*
2. A student registered in a graduate diploma, Master's or Ph.D. program may not concurrently pursue studies leading to any other degree without the prior approval of the Dean.

1.2.3.2 Program Withdrawal

Students intending to withdraw from their program must inform the Dean of Graduate Studies in writing. The period of withdrawal from a program without incurring liability for that semester's fees is three weeks after the first day of lectures in the semester in question, as

stated in the University Diary. Requests received after the end of the regular registration period, and approved, will be charged an administration fee (see Fees and Charges).

1.2.3.3 Course Registration

Note: *For interdisciplinary programs, the Head of the academic unit is the Dean or Director of the Faculty/School administering the program.*

1. Students will register for courses at the times indicated in the University Diary.
2. Students not admitted to a graduate program may enroll in graduate courses with the permission of the Head of the appropriate academic unit.

1.2.3.4 Changes in Course Registrations

Note: *For interdisciplinary programs, the Head of the academic unit is the Dean or Director of the Faculty/School administering the program.*

1. Within two weeks following the first day of lectures in any semester, as stated in the University Diary, a graduate student may, upon the approval of the appropriate Head of academic unit, add a course or courses to his or her registration for that semester.
2. Within seven weeks after the first day of lectures in any semester, as stated in the University Diary, a graduate student may, upon the approval of the appropriate Head of academic unit, drop a course or courses from his or her registration for that semester without prejudice.
3. After the period described in 2. above has expired, and up until the last day of lectures, any student who is prevented from completing a course by illness, bereavement or other acceptable cause, duly authenticated in writing may, upon the recommendation of the Head of the appropriate academic unit, drop that course without academic prejudice.

Note: *A course cannot be dropped after the last day of lectures without the approval of the Dean of Graduate Studies.*

1.2.3.5 Period of Study

1. Each student in graduate studies shall spend such time in the program as decided by the academic unit of specialization and approved by the Dean, and be subject to the following minimum residency.
   a. Except where provided for elsewhere in this calendar, each student for a Master's degree shall normally spend at least two semesters in residence as a graduate student at this University.
   b. Except where provided for elsewhere in this calendar, each student for a Ph.D. shall normally spend at least three semesters in residence as a graduate student at this University.

      To be resident as a graduate student of this university a student must be registered as a graduate student at Memorial University of Newfoundland and participate in a community of learners and instructors (formally or informally) who are joined together by the practices and standards of a profession or an academic discipline. For most students this will involve taking courses or engaging in research while resident on campus. These attributes may, however, be found elsewhere and it is possible therefore that the residency requirement may be satisfied in an off campus location. In such cases the Dean of Graduate Studies must be satisfied that the attributes are met.
   c. Except where provided for elsewhere in this calendar, each student for a graduate diploma shall normally spend at least one semester in residence as a graduate student at this University.
2. The maximum period of a graduate program shall be seven years beyond first registration.

1.2.3.6 Leaves of Absence

1. General
   a. A leave of absence is a period of time during which a student is not required to register; no fees are assessed; and the time granted is not counted in the maximum time period permitted for a graduate program (see **Period of Study**).
   b. In the event that circumstances prevent a student from pursuing his/her program, the student may apply to the Dean of Graduate Studies for a leave of absence.
   c. A student may normally apply for only one leave of absence during his/her program. The maximum leave of absence shall normally not exceed 12 months.
   d. An application for leave will normally be made before the end of the registration period in the first semester for which leave is requested. Requests received after the end of the regular registration period, and approved, will be charged an administration fee (see Fees and Charges).
2. Parental

   A student may apply for a leave of absence in the case of pregnancy/birth/adoption of a child. (Such leave will be considered separately from 1.c. above).

1.2.4 Program Requirements

Note: *Every candidate shall complete a program of study as recommended by the Head of the academic unit, in consultation with the Supervisory Committee and approved by the Dean of Graduate Studies. See **Procedure For Admission**, Clause 2.*

1.2.4.1 Graduate Diploma and Master's Programs

1. Candidates should consult the appropriate Degree and Department/Faculty/School regulations for information concerning the specific program requirements.
2. Graduate diploma programs shall not normally comprise more than 50% of the master's in the same area.

1.2.4.2 Ph.D. Program

1. Each candidate is required to pass a comprehensive examination (see **Comprehensive Examinations, Ph.D. Comprehensive Examination**).
2. Each candidate shall present a thesis embodying the results of original research.
3. Candidates should consult the appropriate Department/Faculty/School regulations for information concerning the number and specific credit hours that may be required for a program.
4. Candidates may pursue a specified part of their research elsewhere provided that prior permission has been obtained from the Dean on the recommendation of the Head of the academic unit in consultation with the Supervisory Committee.

1.2.4.3 English Writing Requirement

Given the analytical and scholarly demands of study at the graduate level, graduate students are expected to demonstrate an advanced facility with written English in meeting the demands of their coursework and, where applicable, in the writing of any end-of-program research report, folio, comprehensive examination, or thesis.

1.2.4.4 Changes in Programs

Any changes in the candidates's program of studies must be approved by the Dean of Graduate Studies on the recommendation of the appropriate academic unit.

1.2.4.5 Research Involving Animals

The Animal Care Unit offers a seminar in animal care at least once annually. The seminar is administered by the School of Graduate Studies. All graduate students whose degree requirements involve experimentation on living vertebrate animals are required to attend this seminar normally at the first offering following commencement of their program.

1.2.4.6 Graduate Research Integrity Requirement

All graduate students are required to complete the Graduate Research Integrity Program (GRIP), which is administered by the School of Graduate Studies and offered annually in the Winter semester. Successful completion of GRIP is normally required in the first offering following program commencement and will be annotated on the student's transcript.

1.2.4.7 Year of Degree and Departmental Regulations

1. A student completing a graduate degree program in the School of Graduate Studies will follow the degree and Faculty/School/ Department regulations in effect in the year in which the student first registers for his/her current program. However, students may elect to follow regulations introduced subsequent to their initial registration.

   Note: *The foregoing notwithstanding, in the case of students who have submitted a thesis/report/folio, or students in a non-thesis program who have taken a comprehensive examination, the option of changing regulations is no longer available.*

2. When there is doubt as to which degree or departmental regulations may be followed, the Academic Council of the School of Graduate Studies will decide which are the appropriate regulations.
3. Notwithstanding these guidelines, the University may place limits on the time permitted to complete a program under any given set of regulations. In addition, detailed scheduling of courses and/or work periods may be changed as the University deems appropriate or necessary.

1.2.4.8 Transfer of Course Credits

All such transfers require the approval of the Dean of Graduate Studies, on the recommendation of the head of the appropriate academic unit.

1. A student who has successfully completed graduate courses at Memorial University of Newfoundland prior to admission to a graduate program may apply to transfer appropriate courses to that program, provided such courses have not been used to satisfy other degree requirements.
2. A student who has successfully completed graduate courses as part of one graduate program at Memorial University of Newfoundland, and who is subsequently admitted to another program, may apply to transfer appropriate courses to the current program, provided such courses have not been used to satisfy other degree requirements.
3. A student who has successfully completed graduate courses at another institution recognized by Senate may, on admission to a graduate program at Memorial University of Newfoundland, apply to transfer appropriate courses to the current program, provided such courses have not been used to satisfy other degree requirements.
4. Students who successfully complete a graduate diploma program may transfer the course credits earned in that program towards a master's degree if these credits meet the requirements of the master's in the affiliated area in which the graduate diploma was granted.

   Affiliated Master's programs for graduate diploma programs currently offered by the School of Graduate Studies are as follows:

   Medicine

   Graduate Diploma in Clinical Epidemiology - Master of Science in Medicine (Clinical Epidemiology)

   Graduate Diploma in Community Health - Master of Science in Medicine (Community Health)

   Education

   Graduate Diploma in Post-Secondary Studies (Health Professional Education) - Master of Education (Post-Secondary Studies)

   Marine Studies

   Graduate Diploma in Fisheries Resource Management - Master of Marine Studies (Fisheries Resource Management)

5. In programs requiring a minimum of 12 credit hours or more, transfer of credit hours in graduate courses referred to in 1, 2, and 3 above shall not exceed 30% of the total number of credit hours required. In programs requiring fewer than 12 credit hours, a maximum of 3 credit hours in graduate courses referred to in 1., 2., and 3. above shall be considered eligible for transfer.
6. Graduate courses referred to in 1., 2., 3., and 4. above shall not be considered eligible for transfer if they have been completed more than seven years prior to the date of admission into the current program.

1.2.5 Provision for Waiver of Regulations

Academic regulations notwithstanding, the University reserves the right in special circumstances, to modify, alter or waive any regulation in its application to individual students where, in the judgement of the appropriate University Officer or Committee, there is sufficient justification for doing so.

1. Waivers of course prerequisites/co-requisites may be granted by the Head of an academic unit.
2. Waivers of departmental regulations may be granted by the Dean of Graduate Studies on the recommendation of the Head of an academic unit.
3. Requests for waiver of a degree or general regulation must be submitted to the Academic Council of the School of Graduate Studies.

1.2.6 Appeals Procedures

Students have the right to appeal against decisions of the Head of an Academic Unit, the Dean or Academic Council. Appeals must be made in writing clearly stating the basis for the appeal and should be directed as follows:

1. Appeals against decisions of the Head of an Academic Unit will be made directly to the Dean of Graduate Studies.
2. Appeals against decisions of the Dean may be made to the Academic Council, School of Graduate Studies. Letters of appeal should be directed to the Chair of the Appeals Committee, c/o School of Graduate Studies.
3. Appeals against decisions of the Executive Committee of the Academic Council may be made to the Academic Council, School of Graduate Studies. Letters of appeal should be directed to the Chair of the Appeals Committee, c/o School of Graduate Studies.
4. Appeals against decisions of Academic Council may be made to the Senate of the University. Letters of appeal should be directed to the Secretary of Senate, c/o Office of the Registrar.

Note: *Students whose appeals are denied will be advised in the letter of denial of the next avenue of appeal that may be taken. Should a student's appeal be denied by the Senate, he/she will be advised that, within the University, no further appeal is possible. For assistance in the appeals process, students are advised to consult with the Office of the Registrar, regarding appeals to Senate.*

1.2.7 Evaluation

Note: *For interdisciplinary programs, the Head of the academic unit is the Dean or Director of the Faculty/School administering the program.*

1.2.7.1 Evaluation Methods and Grading

1. Students shall write their examinations in graduate courses at a time to be determined by the Head of the academic unit on the recommendation of the Faculty member(s) concerned.
2. A written copy of the course outline, including method of evaluation in the course shall be provided to each student in the course as early as possible, and in any case not later than two weeks after the start of the course.
3. The final evaluation submitted to the Registrar shall consist of one of the following letter grades with the appropriate numerical equivalent:

Letter Grades	Numeric Grades	Points Per Credit Hour
A	80-100%	4
B	65-79%	3
C	55-64%	2
D	50-54%	1
F	below 50%	0
PWD (pass with distinction) - indicates excellent performance	no numeric grade	not applicable
PAS (pass) - indicates performance meets expectations	no numeric grade	not applicable
FAL (fail) - indicates failing performance	no numeric grade	not applicable
DR (drop) - drop without academic prejudice	no numeric grade	not applicable
DRF (drop fail) - drop with academic prejudice	0%	0
ABS (absent) - absent for acceptable cause	no numeric grade	not applicable
INC (incomplete) - incomplete pending final grade	no numeric grade	not applicable

4. Supplementary examinations are not permitted.

1.2.7.2 Evaluation of Graduate Students

1. Failure to attain a final passing grade of A or B in a program course shall lead to termination of a student's program unless:
   a. the regulations for a particular degree allow the student to repeat the course. Only one such repeat will be permitted in a student's program. Failure to obtain a grade of A or B in the repeated course shall lead to termination of the student's program.
   b. the Dean of Graduate Studies approves a repeat of the course, upon the recommendation of the Supervisor and the Supervisory Committee supported by the Head of the Academic Unit, where 1.a. above does not apply. Such recommendations must provide sufficient grounds for a repeat. Only one such repeat will be permitted in a student's program. Failure to obtain a grade of A or B in the repeated course shall lead to termination of the student's program.

   Note: *In exceptional circumstances, the Dean of Graduate Studies may approve a substitute course in place of the repeat upon the recommendation of the Supervisory Committee and Supervisor supported by the Head of the Academic Unit. Failure to obtain a grade of A or B in the substituted course shall lead to termination of the student's program.*
2. Failure in a non-program course will not normally result in termination of a student's program.
3. The Supervisor and the Supervisory Committee may recommend that a candidate be required to withdraw from the program, if after consultation with the candidate, the candidate's non-course work is deemed to have fallen below a satisfactory level.
4. When departmental requirements for a degree requires an examination of a candidate's reading knowledge of a language(s) other than English, the examination shall be set and marked by the appropriate language department, or by an authority as determined by the Head of the academic unit and Dean. The results of the examination will be transmitted to the candidate by the Dean.

1.2.7.3 Deferral of Examinations

1. Graduate students who are prevented by illness, bereavement or other acceptable cause, duly authenticated, from writing final examinations may apply, with supporting documents within one week of the original examination date to the appropriate head of the academic unit to have their examinations deferred.
2. The Department's decision, including information on the appeals route open to the student in the case of a negative decision, must be communicated in writing to the student and to the Dean of Graduate Studies within one week of the receipt of the student's complete application.

3. In those cases where the Department accepts the extenuating circumstances the student may be permitted to write a deferred examination or, with the consent of both the Department and the student, the grade submitted may be based on term work alone.
4. An interim grade of "ABS" will be assigned by the academic unit in the case of a student granted a deferred examination. This grade will be replaced by the final grade which must be received by the Office of the Registrar within one week following the commencement of classes in the next academic semester or session.
5. Students who are prevented by illness or bereavement or other acceptable cause, duly authenticated, from writing a deferred examination, may apply, in writing, with supporting documents within one week of the scheduled date of the deferred examination to the appropriate Department Head to have the examination postponed to a time not later than the last date for examinations in the semester following that in which the student was enrolled in the course.
6. The Department's decision, including information on the appeals route open to the student in the case of a negative decision, must be communicated to the Registrar, to the student and to the Dean of Graduate Studies within one week of the receipt of the student's complete application.

1.2.7.4 Incomplete Grades/Change of Grade

1. For good cause a grade of "Incomplete" may, with the approval of the appropriate department or academic unit, be submitted. This "Incomplete" grade shall, however, be valid only for one week following the commencement of classes in the next academic session as stated in the University Diary. In the event that a mark has not been received by the Registrar within the prescribed deadline, the "Incomplete" grade shall be changed to "0 F".
2. Clause 1. notwithstanding, for acceptable cause an extension of time not exceeding the end of the semester following that in which the "Incomplete" was given may be permitted by the Head of the academic unit. "Acceptable cause" in these cases must be duly authenticated and will be illness, bereavement, serious problems of a personal nature or the like.
3. Changes in grades for graduate courses must be submitted on the appropriate form, which must be signed by the course instructor and approved by the Head of the appropriate academic unit who will submit such changes to the Registrar.

   Note: *A grade of less than 65% cannot be changed without the approval of the Dean of Graduate Studies.*

1.2.7.5 Re-Reading of Examination Papers

1. Students may apply to have a final examination paper re-read whether or not they have obtained a passing grade in that course.
2. Students who wish to have a final examination paper re-read must make written application to the Registrar enclosing a fee of $50.00 per paper within one month of the release by the University of the grade reports. If the mark is raised after re-reading, the fee is refunded. If the mark is unchanged or lowered, the fee is forfeited.

1.2.8 Comprehensive Examinations

1.2.8.1 Master's Comprehensive Examination

1. The composition of the Comprehensive Examination Committee is specified in the degree and departmental regulations, and the Committee is appointed by the Dean. The Dean of Graduate Studies or delegate may exercise the right to attend. All members of the Committee including the Chairperson, but excluding the Dean of Graduate Studies, shall be voting members.
2. In this examination the candidates must demonstrate an advanced knowledge of the academic discipline as defined by the academic unit in which they are students. Therefore, in order to be eligible to sit the examination, all course requirements must be completed.
3. Members of the Comprehensive Examination Committee shall decide the results of the comprehensive examination as indicated in a.-d. below:
   a. The category of "pass with distinction" will be awarded to candidates who demonstrate superior knowledge of their chosen field. This category requires unanimous support of the Comprehensive Examination Committee.
   b. The category of "pass" will be awarded to candidates who demonstrate an acceptable knowledge of their chosen area and requires a simple majority vote.
   c. The category of "re-examination" selects those candidates with an understanding of their research area that lacks sufficient depth and scope as indicated by a simple majority of the Comprehensive Examination Committee. Only one such re-examination is possible and students in this category are not eligible for the award of "pass with distinction". If a re-examination is to be held, it must be conducted not less than one month and not more than six months after the first examination. The decision of the voting members of the Committee following this re-examination can only be "pass" or "fail" decided by simple majority. Failure will lead to immediate termination of the candidate's program. There is no option for further re-examination.
   d. Students awarded a "fail" are deemed, by unanimous vote of the Comprehensive Examination Committee, to be unable to demonstrate an adequate understanding of their research area. The candidate's program is terminated.
4. The Chairperson of the Comprehensive Examination Committee shall report to the Head of the academic unit who shall report to the Dean. The result of the comprehensive examination(s) shall be reported to the candidate by the Dean.

1.2.8.2 Ph.D. Comprehensive Examination

1. The candidate shall submit to a comprehensive examination, which may be written or oral or both as determined by the academic unit. Candidates shall normally take the examination no later than the end of the seventh semester in the doctoral program. Unless an extension is approved by the Dean of Graduate Studies, failure to take the examination at this time will result in the termination of the candidate's program.
2. This examination, whether written or oral, shall be conducted by a Committee appointed by the Dean of Graduate Studies on the recommendation of the academic unit. It shall consist of the Head of the academic unit (or delegate) who shall be the Chairperson, the candidate's supervisor [or, where a supervisor has not yet been appointed, the Graduate Officer or chair of the Graduate Studies (or equivalent) Committee], the Dean of Graduate Studies (or delegate), and at least three other members, the total voting members to be an odd number. All members of the Committee including the Chairperson, but excluding the Dean of Graduate Studies, shall be voting members.
3. In this examination, the candidate must demonstrate a mastery of those sub-disciplines appropriate to his/her research area, as defined by the academic unit in which they are students. Those sub-disciplines upon which the candidate will be examined should be made known to the candidate no later than three months prior to the examination. The candidate must further be able to relate the specialization of his/her research to the larger context of these sub-disciplines.
4. Members of the Comprehensive Examination Committee shall decide the results of the comprehensive examination as indicated in a-d below:

a. The category of "pass with distinction" will be awarded to candidates who demonstrate superior knowledge of their chosen field. This category requires unanimous support of the Comprehensive Examination Committee.
b. The category of "pass" will be awarded to candidates who demonstrate an acceptable knowledge of their chosen area and requires a simple majority vote.
c. The category of "re-examination" selects those candidates with an understanding of their research area that lacks sufficient depth and scope as indicated by a simple majority of the Comprehensive Examination Committee. Only one such re-examination is possible and students in this category are not eligible for the award of "pass with distinction". If a re-examination is to be held, it must be conducted not less than one month and not more than six months after the first examination. The decision of the voting members of the Committee following this re-examination can only be "pass" or "fail" decided by simple majority. Failure will lead to immediate termination of the candidate's program. There is no option for further re-examination.
d. Students awarded a "fail" are deemed, by unanimous vote of the Comprehensive Examination Committee, to be unable to demonstrate an adequate understanding of their research area. The candidate's program is terminated.

5. The Chairperson of the Comprehensive Examination Committee shall report to the Head of the academic unit who shall report to the Dean. The result of the comprehensive examination(s) shall be reported to the candidate by the Dean.

1.2.9 Supervision

1.2.9.1 Master's Candidates

Each Master's candidate shall be assigned a Supervisor by the Dean, on the recommendation of the Head of the academic unit, or the Dean of the faculty concerned.

1.2.9.2 Ph.D. Candidates

1. Each candidate shall be assigned a Supervisor by the Dean, on the recommendation of the Head of the academic unit or the Dean of the faculty concerned.
2. A Supervisory Committee shall be appointed for each candidate by the Dean. The Supervisory Committee shall consist of the Supervisor (co-supervisors) who shall act as Chair, and normally at least two other members. In no circumstances may the Committee membership be fewer than two members. The membership of the Committee shall be nominated by the Head of the department or the Dean of the faculty concerned, after consultation with the Supervisor and the candidate.
3. The Supervisory Committee shall forward its reports and recommendations to the Dean via the Head of the department or the Dean of the faculty concerned.
4. The functions of the Supervisory Committee shall be, *inter alia*,
   a. to decide, in consultation with candidates, the program of study, the subject of research, and the title of the thesis, and to recommend these for approval to the Dean;
   b. to monitor the candidate's progress in their course programs and their research;
   c. to report at least annually to the Dean on the candidates' progress and, at the same time, to advise on their continuation in the program; and to make such other reports and recommendations about the candidates to the Dean as it may deem necessary.
   d. to recommend to the Dean, after consultation with the candidates, necessary changes in the program of study, the subject of research, or the title of the thesis;
   e. to recommend to the Head of the academic unit or Dean of the faculty the timing of the comprehensive examination;
   f. to report to the Dean that the thesis is ready for examination by completing a Supervisor Approval Form, which is to accompany the thesis upon its submission to the School of Graduate Studies.
   g. to recommend to the Dean suitable persons to act as members of the Thesis Examining Board.

1.2.9.3 Supervisory Reports

1. At least annually, the Supervisor, Supervisory Committee or the Department shall make evaluations of a student's progress in a program. Recommendations concerning continuation, amendment, or termination (see **Termination of a Graduate Program**) of a candidate's program, are sent to the Dean, who shall take appropriate action. Students shall be advised of the contents of this evaluation and the subsequent recommendation(s).
2. The Supervisor, Supervisory Committee or the Department, shall forward its reports and recommendations to the Dean via the Head of the academic unit or the Dean of the faculty concerned.

1.2.10 Theses and Reports

1.2.10.1 Thesis/Report Guide Supplement

The Thesis/Report Guide Supplement (www.mun.ca/sgs/guidelines_intro.php), approved by the Academic Council of the School of Graduate Studies, provides the details for the examination process, general form and style of the thesis/report, required forms, number of copies, etc., required under this regulation.

1.2.10.2 Submission

1. Candidates must submit the thesis/report at least four months before the University Convocation at which the award of the degree is expected (see University Diary in current edition of University Calendar for exact date). The School of Graduate Studies does not accept any responsibility for completing the prescribed procedure in time for the nearest Convocation unless theses or reports are submitted by the prescribed dates in any current academic year.
2. A thesis/report may not be submitted until the candidate has fulfilled:
   a. All course requirements, if any
   b. All language requirements, if any
   c. The comprehensive examination, if required, and
   d. All other academic requirements of the academic unit concerned.

1.2.10.3 Evaluation of Masters Theses and Reports

1. Final examiners for the thesis/report will be appointed by the Dean on the recommendation of the academic unit. There will be two

examiners for a Master's thesis. Examiners shall normally be those who have completed a graduate degree at the doctoral level, including a thesis, in the discipline or cognate area. Those serving as examiners shall not have been involved in the preparation of the thesis/report.

2. Examination of the thesis/report will result in one of the following recommendations by each examiner. The thesis/report is:
   a. acceptable without modifications; or
   b. acceptable, modifications are required but the thesis does not have to be re-examined*; or
   c. unacceptable. The thesis/report requires modification and re-examination**; or
   d. totally unacceptable - the thesis/report is failed.***

   *Modifications may include corrections of typographical errors and errors in nomenclature, improvement in phrasing, or rewriting of sections of the thesis/report. Modifications may be indicated in the text or listed separately;
   **Modifications might include (but are not limited to) the rectification of one or more of the following deficiencies: (1) misinterpretation and/or misuse of the matter covered, omission of relevant materials, unfounded conclusions, illogicality of argument, improper analysis of data and the like; (2) bad writing, (3) unacceptable physical presentation. A detailed list of problems should be included with the report;
   ***A detailed list of the reason(s) for failure must be included in the report.
3. If all examiners recommend that the thesis/report is totally unacceptable, then the thesis will be failed, and shall not be re-examined.
4. If an examiner recommends that the thesis/report is unacceptable, and this recommendation is accepted by the Dean, then the student may apply to the Dean for permission to resubmit the thesis for re-examination in one of the following ways:
   a. to submit a modified thesis/report to the original examiners.
   b. to submit a modified thesis/report to new examiners.
   c. to submit the original thesis/report to an Examination Board to be appointed by the Dean.
5. If a thesis/report is re-examined, the candidate will not be awarded a pass unless all examiners find the thesis acceptable.
6. Under no circumstances may a thesis/report be re-examined more than once.

1.2.10.4 Evaluation of Ph.D. Theses

Candidates for the degree of Doctor of Philosophy must submit a written dissertation deemed acceptable by the University, and demonstrate their ability to defend their work in a public oral examination. For this reason, the final decision on whether a candidate will be recommended for the award of the degree is made only at the conclusion of the oral examination (see **The Examination Process**).

1. **Responsibilities of the Thesis Examining Board**

   The work of each candidate will be assessed by a Thesis Examining Board. Its first responsibility is to determine whether the thesis successfully demonstrates the candidate's competence to undertake independent research work. The Board must be satisfied that the work contributes significantly to knowledge in the field of study; that the contribution is of high scholarly merit; that the candidate is aware of the pertinent published literature; that it is written in a satisfactory style; and that it is free from typographical and other mechanical errors. The second responsibility of the Board is to conduct a final oral examination of the candidate and to then recommend to the Dean of Graduate Studies whether the candidate should be awarded the degree.
2. **Composition of the Thesis Examining Board**

   The members of the Thesis Examining Board will be appointed by the Dean on the recommendation of the Head of the academic unit who will have consulted with the supervisory committee. The Board shall consist of four members. Normally these will be the candidate's supervisor (who serves on the Board in a non-voting capacity), two examiners from within the University, and one from outside the University. However, when circumstances warrant, a second external examiner may be substituted for one of the internal examiners with permission of the Dean. Examiners shall normally be those who have completed a graduate degree at the doctoral level, including a thesis, in the discipline or cognate area. Members of the supervisory committee other than the supervisor are ineligible for appointment to the Board. Those serving as examiners shall not have been involved in the preparation of the thesis/ report.
3. **The Examination Process**
   a. The voting members of the Board shall submit written reports on the thesis containing an assessment of the quality of the written work and a recommendation as to whether the candidate should be permitted to proceed to an oral examination and defence of the work. An examiner may recommend:
      i. that the candidate be allowed to proceed to the oral defence of the thesis*, or;
      ii. that the candidate not be allowed to proceed to the oral defence at this time**, or;
      iii. that the candidate should be failed.

      *Any suggested corrections or revisions should be outlined in the examiner's report. It is understood that it will be the responsibility of the Supervisory Committee to discuss the suggested changes with the candidate, to determine which should be incorporated in the thesis before its final submission.

      **This recommendation reflects the examiner's opinion that further research, re-analysis of data, or thorough rewriting of the material is required. The thesis may, however, be re-submitted for examination.
   b. No candidate will be permitted to re-submit a thesis more than once. If the Dean decides that the thesis must be revised before it can be orally defended (as specified in 3.a.ii.) the resubmitted thesis will be examined by a Board which may differ in whole or in part from the original. In the case of a re-submitted thesis an examiner may recommend only:
      i. that the candidate be allowed to proceed to the oral defence of the thesis, or;
      ii. that the candidate should be failed.
   c. After receiving the reports from all three voting members of the Board the Dean will consider the recommendations and determine whether an oral defence of the thesis will be scheduled.
   d. The Final Oral Examination and Defence of Thesis will take place at a time and place to be determined by the Dean of Graduate Studies and will be chaired by the Dean or his/her delegate. The presence of all members of the Examining Board is normally required.
   e. Following the defence, the Board will meet *in camera* to render a final assessment of the thesis and the candidate's ability to defend his/her work. The Board may recommend one of the following outcomes:
      i. Passed with distinction (Awarded to candidates who demonstrate superior knowledge of their chosen field; this category requires unanimous support of the Board*.)

ii. Passed*

iii. Passed Subject to Conditions**

iv. Re-examination required***

v. Failed****

*This recommendation may have attached to it the requirement that the candidate complete certain specified revisions to the satisfaction of the Supervisory Committee, the Head of the academic unit and the Dean. These revisions must have been specified in the written appraisal submitted prior to the Oral Examination.

**This recommendation is made if there are revisions beyond those specified in the written appraisal submitted prior to the Oral Examination. This recommendation must have the conditions attached and cannot include the option of re-examination.

***The members of the Thesis Examination Board may attach to this recommendation a list of any requirements which they feel are appropriate.

****Re-examination not permitted.

f. If the members of the Board are unanimous in their recommendation, the Chair of the Examination may accept this recommendation and inform the candidate of the decision. In any other case, however, the delivering of any final decision shall be deferred pending further consultation within the School of Graduate Studies.

g. No candidate shall be permitted more than two Oral Examinations.

1.2.10.5 Time Limit for Revision

The final version of Master's and Ph.D. theses/reports found acceptable with or without corrections shall be submitted to the School of Graduate Studies within 6 months of the date on which the thesis/report and the student's examiners' reports are returned to the student's academic unit. If a corrected thesis/report is not submitted within 6 months the student is considered to have withdrawn from the program. After this time, the student must apply to be readmitted.

Master's and Ph.D. theses/reports requiring re-examination shall be resubmitted to the School of Graduate Studies within 12 months of the date on which the thesis/report and the examiner's reports are returned to the student. Students requiring resubmission and re-examination of theses/reports must maintain their registration during this period. Failure to resubmit the revised thesis/report within 12 months will result in termination of the student's program.

Note: *Please refer to **Registration** for regulations governing program registration.*

1.2.10.6 Prepublication

Publication of material before submission of the thesis/report for examination is permitted. The School of Graduate Studies and Supervisor should be informed of such publication.

1.2.11 Graduation Procedure

Candidates expecting to graduate at any particular Convocation must apply online to the Office of the Registrar at www.mun.ca/regoff/ at least by the time of the submission of the Thesis, Project Report or Internship Report required by their program, or, if applicable, by the date of the final comprehensive examination.

1.2.12 Academic Behaviour

1.2.12.1 Principles

In the course of a graduate degree program students are expected to learn those principles which constitute proper academic behaviour. Within the University Community there is a collective responsibility to maintain a high level of scholarly integrity. Dishonesty has no place in the academic community. Academic misbehaviour cannot be condoned or even appear to be condoned. Students have the responsibility to ascertain those actions which could be construed as dishonest or improper. Certain flagrant violations are listed below under Academic Dishonesty. Students are reminded that for guidance on proper scholarly behaviour they should seek assistance from their instructors and supervisors. The Graduate Students' Union will provide students with information on their legal rights and the information that advice about acceptable writing standards is available through the Writing Centre.

1.2.12.2 Academic Dishonesty: Offences

Note: *In the following section the plural shall be deemed to include the singular.*

Academic offences shall be deemed to include, but shall not be limited to, the following:

1. **Cheating:** Cheating on examinations, theses, assignments, work term reports, projects, internship reports, or any other tests.

   Cheating includes copying from another student's work or allowing another student to copy from one's own work, consulting with any unauthorized person during an examination or test, or using unauthorized aids; or knowingly recording or reporting false empirical or statistical data. The work referred to includes examinations, theses, assignments, work term reports, projects, internship reports, or any other tests which are to be used in judging the student's performance in a course or program of study, or on any special tests which the University may offer.

2. **Impersonation:** Impersonating another student or allowing oneself to be impersonated.

   By impersonation is meant the imitation of a student or entrance into an arrangement with another person to be impersonated for purposes of taking examinations or tests or carrying out laboratory or other assignments.

3. **Plagiarism:** Plagiarism is the act of presenting the ideas or works of another as one's own. This applies to all material such as theses, essays, laboratory reports, work term reports, design projects, seminar presentations, statistical data, computer programs and research results. The properly acknowledged use of sources is an accepted and important part of scholarship. Use of such material without acknowledgement, however, is contrary to accepted norms of academic behaviour.

4. **Theft of examination papers or other material:** By theft is meant obtaining by an improper means examination papers, tests, or any other such material.

5. **Use and/or distribution of stolen material:** The use of material which the student knows to have been improperly obtained and/or the distribution of such material is considered to be an academic offence.

6. **Submitting false information:** This offence includes falsifying, submitting or causing to submit false academic transcripts, forms or records, credentials, medical or other certificates, or making a false or incomplete declaration to the University.

7. **Submitting work for one course which has been or is being submitted to another course without express permission to do**

so: This includes the presentation of an essay, report or assignment to satisfy some or all of the requirements of a course when that essay, report, or assignment has been previously submitted or is concurrently being submitted for another course without the express permission of the professor(s) involved.

1.2.12.3 General Procedure

1. When a member of the University community has grounds for belief that an academic offence has been committed, that person will report the matter without delay to the Head of the Department or the appropriate academic officer (i.e., Dean or Director) of the unit in which the offence occurred. In the case of non-academic units, such as the Office of the Registrar, Library and Computing Services, the matter shall be referred through the University Officer in charge of that unit. The student should be informed of the suspicion as soon as possible in an effort to avoid further improper behaviour. There should then be an immediate direct attempt to resolve minor offences between the instructor or supervisor and the student(s) concerned at the departmental level. Only if resolution proves impossible, or one party is dissatisfied with the resolution, should the Department Head or other appropriate academic officer become further involved.
2. If, in the judgment of the Department Head or other appropriate academic officer (in consultation with his Dean of Faculty) the alleged offence against University regulations is such as to warrant resolution through the School of Graduate Studies, the Department Head or other appropriate academic officer will refer the matter to the Dean of Graduate Studies, and procedures for resolution by the School of Graduate Studies will be implemented.
3. If, in the judgment of the Department Head or other appropriate academic officer, the offence warrants resolution through departmental procedures, the individuals involved will be advised to attempt to resolve the matter without proceeding to a formal hearing. In the event that no resolution is possible between the individual parties, the Department Head or other appropriate academic officer will institute proceedings through the School of Graduate Studies. In all cases, it is the responsibility of the Department Head or other appropriate academic officer to ensure that fairness and impartiality are achieved in the treatment of students.
4. The principle of anonymity shall apply. All written documents shall refer to the student by number and the faculty member by letter.

1.2.12.4 Procedure for Departmental Resolution

If, upon receiving a report of an alleged academic offence the Department Head or other appropriate academic officer, decide that an attempt should be made to resolve that matter within the department the following procedures shall apply:

1. The Department Head or other appropriate academic officer shall request that the accusor and the accused meet with him (or her) and at the meeting the Department Head or other appropriate academic officer shall state the allegation, indicate the range of applicable penalties, and arrange a second meeting between the accusor and the accused only.
2. At the second meeting the parties (accusor and accused) shall endeavour to obtain a mutually satisfactory resolution of the matter.
3. The parties (accusor and accused) shall report jointly to the Department Head or other appropriate academic officer on the result of their second meeting.
4. If the report is of a resolution which the Department Head or other appropriate officer considers to be fair and equitable the matter shall be considered closed. If the Department Head or other appropriate academic officer considers the reported resolution to be unfair and/or inequitable he or she will endeavour to obtain an alternative satisfactory resolution directly with the parties.
5. Should all reasonable efforts to obtain a Departmental resolution fail, the Department Head or other appropriate academic officer will refer the case to the Dean of Graduate Studies and shall inform the accusor and the accused accordingly. From this stage onward procedures for resolution by the School of Graduate Studies will apply.

Notes:
1. *The accused or accusor may request, during the procedures for an informal resolution, that the case be referred to the Dean of Graduate Studies and thereafter the procedures for resolution by the School of Graduate Studies will apply.*
2. *Procedures for Departmental Resolution will not be applied to cases involving alleged offences on final examinations.*
3. *If at any stage of the procedures for either Departmental or Graduate Studies resolution, the accused fails to appear or to respond to a charge, without reasonable cause, within two weeks of notification of an allegation, action may be taken on the charge in the absence of the accused.*
4. *If at any stage of the procedures for either Departmental or Graduate Studies resolution, the accusor fails to appear at a scheduled hearing to defend an allegation, without reasonable cause, within two weeks of notification by the Department Head or other appropriate academic officer, the action will be dismissed.*

1.2.12.5 Procedures for Resolution by the School of Graduate Studies

If the matter cannot be resolved following the Procedure for Departmental Resolution as outlined above, or if the allegation involves a major breach of University regulations, the following procedures shall apply:

1. If the Department Head or other appropriate academic officer (in consultation with the Dean of his faculty) is satisfied that the student has a serious case to answer, he or she shall inform the student in writing of the nature of the case against him or her. In addition, the Department Head or other appropriate academic officer shall report to the Dean of Graduate Studies who shall immediately appoint a disinterested Investigator from the membership of the Academic Council of Graduate Studies. The Investigator will interview separately the accusor and accused and relevant witnesses. At these interviews, the Investigator, the accusor, the accused and relevant witnesses all have the right to be accompanied by a registered student or a member of the Faculty or Staff of the University.
2. Upon completion of these interviews, the Investigator shall submit a written report of all findings to the Dean of Graduate Studies.
3. The Dean of Graduate Studies shall present this report to both the accusor and accused for perusal and comment. Once in receipt of this report, the accusor and accused shall have two weeks in which to submit to the Dean of Graduate Studies any additional comments on the report that he or she wishes to be considered.
4. Upon receipt of all information from the Investigator as well as comments from the accusor and accused, the Dean of Graduate Studies shall strike an *ad hoc* committee to review the case and make recommendations to the Academic Council of the School of Graduate Studies. The Investigator may be asked to attend the meetings of the *ad hoc* committee to answer questions and provide information pertinent to the case, but shall be absent from the formal discussion and voting.
5. The Academic Council of the School of Graduate Studies shall take appropriate action in accordance with the section headed "Penalties".

Notes:
1. *If at any stage of the procedures for either Departmental or Graduate Studies resolution, the accused fails to appear or to respond to a charge, without reasonable cause, within two weeks of notification of an allegation, action may be taken on the charge in the absence of the accused. Action will proceed regardless of the current status of the student.*
2. *If at any stage of the procedures for either informal or formal resolution, the accusor fails to appear at a scheduled hearing to defend an allegation without reasonable cause, within 2 weeks of notification the action will be dismissed.*

1.2.12.6 Penalties

The imposition of any of the penalties listed below does not preclude further action under the Criminal Code of Canada. A student who has been found guilty of an academic offence will be subject to a penalty or penalties commensurate with the offence. The range of penalties and their determination is given below. Enforcement of penalties resulting from Procedures for Resolution by the School of Graduate Studies will be overseen by the Registrar. Some cases may warrant more than one penalty for the same offence, and previous academic misconduct will be taken into account in determining penalties. Penalties resulting from Department resolution shall be limited to 1. and 2. Penalties shall be imposed on the basis of the student's status at the time of the offence.

1. **Reprimand:** This shall be in the nature of a warning by the Department Head, or appropriate academic officer or an appropriate Committee to the student that his/her behaviour has been unacceptable to the University.
2. **Reduction of grade:** A reduction of grade will apply to an examination, test, or assignment to which an offence is relevant, and will be decided by the Academic Council of the School of Graduate Studies upon the recommendation of the Department concerned in the case of a resolution by the School of Graduate Studies, or by a Department Head, or appropriate academic officer in the case of a Departmental resolution. Since graduate students must obtain a B grade in required courses and a pass in additional courses a reduction of grade could lead to termination of program.
3. **Probation:** The period of probation will be determined by the Academic Council of the School of Graduate Studies. The impact of being placed on probation is that the commission of any further academic offence during the period of probation may lead to suspension or expulsion.
4. **Suspension:** Suspension will apply to a course, department, faculty, school, or the University. The period of suspension will be determined by the Academic Council of the School of Graduate Studies and shall not exceed three consecutive semesters, and shall be part of the allowable time for a graduate program.
5. **Expulsion:** The recommendation for expulsion from the University will be made by the Academic Council of the School of Graduate Studies to the President for his/her final decision. Prior to the President's decision, the Secretary of the Academic Council will notify the accused, in writing, of the recommendation for expulsion from the University. The accused will be allowed a period of two weeks following the date of release of such notification to lodge an appeal before the President's final decision concerning expulsion from the University. Any such appeal should be made in writing to the Executive Committee of Senate.
6. **Revocation of Degree:** The recommendation will be made by the Academic Council of the School of Graduate Studies that the Senate rescind a degree that has been obtained by submission of fraudulent or plagiarized work.
7. **Rescinding of Admission and Degree Revocation:** The submission of false information (see **Academic Dishonesty Offences**) in support of an application for admission to Memorial University of Newfoundland is an Academic Dishonesty Offence. In the event that this offence is discovered after the granting of a degree, the Academic Council of the School of Graduate Studies may recommend to the Senate that the student's admission be rescinded and that the degree(s) granted to the student be revoked.

In the event that a student has been found guilty of an Academic Dishonesty Offence and when a penalty has been determined, a notation on the student's transcript may be made by the Registrar as provided for in **Transcript Entries** below.

1.2.12.7 Transcript Entries

Transcript entries shall relate to the penalty(ies) imposed as follows:

Penalty	**Transcript Entry**
Reprimand	No transcript entry
Reduction of Grade	Entry of final grade for course
Probation	"On probation at the University for academic misconduct until Day, Month, Year"*
Suspension	"Suspended from the School of Graduate Studies for academic misconduct until Day, Month, Year"*
Expulsion	"Expelled from the University for academic misconduct"
Revocation of Degree	"Degree revoked for Academic Dishonesty"

** The transcript entries for 'probation' or 'suspension' will be removed entirely upon the expiration of the penalty.*

1.2.12.8 Disposition of Documentation

The disposition of documents relating to allegations under these procedures shall be as follows:

1. The cases where the allegation was either found "not proven" or "unfounded" no documentation shall be retained.

   otherwise

2. In the case of a resolution effected through the procedures for departmental resolution, all documentation shall be retained in the office of the relevant Department Head or other appropriate academic officer.

   or

3. In the case of a resolution effected through the procedures for resolution by the School of Graduate Studies all documentation shall be forwarded to the Office of the Registrar.

1.2.12.9 Right of Appeal

Appeals against decisions of the Academic Council of the School of Graduate Studies made under **Procedures for Resolution by the School of Graduate Studies** shall be directed to the Executive Committee of Senate.

Notes:
1. *These procedures shall apply to all academic offences relating to graduate studies involving, but not limited to, those students who either have been or who are enrolled at Memorial University of Newfoundland. Notification of an allegation of academic dishonesty will be forwarded to the last known mailing address of the student as noted on the files of the School of Graduate Studies. The University reserves the right to implement action under these procedures where an allegation has been made against a student but where reasonable efforts to contact the student have failed.*
2. *While a student can continue in a program of studies, if eligible, while an investigation under these procedures is being carried out, the University does not accept liability for any consequences to the student's progress including retroactive effect on grades and promotion within a program, arising from an investigation and any negative decision rendered. However, the University may take these consequences into account as appropriate, and to the extent feasible, in cases where charges are dropped or the student is found not guilty.*

1.2.13 Termination of a Graduate Program

Grounds for termination of a Graduate Program are as follows:

1. a. Failure to obtain the required grades in courses as stated in the appropriate degree regulations (see **Evaluation**);

   b. Failure in comprehensive examinations (see **Comprehensive Examinations**);

c. Recommendation of the Supervisory Committee (see **Supervision**);

d. Failure of Thesis, Project or Internship (see **Theses and Reports**);

e. Failure to register in any semester by the final date for adding courses (see **Registration, Program Registration, 1.**);

f. Lack of progress in a program;

g. Failure to comply with the conditions of admission into a program, unless the conditions of admission have been changed with approval of the academic unit and the School of Graduate Studies; or

h. Academic misconduct as outlined under General Regulation **Academic Behaviour** governing the School of Graduate Studies.

2. The foregoing notwithstanding the University reserves the right to require students to discontinue their program or to deny them admission where, in the opinion of the Academic Council of the School of Graduate Studies, following appropriate professional consultation, there is a reasonable likelihood that a student's health or conduct could result in endangering the lives, health or safety of other persons on campus or in settings related to the student's university studies.

3. The foregoing notwithstanding, the School of Graduate Studies reserves the right to require students to discontinue their studies, or to deny them re-admission, where a student has been determined to have engaged in unprofessional conduct. The code of ethics of each profession will serve as the guideline as to what constitutes unprofessional conduct. However, should there not be any statements of what constitutes unprofessional conduct, the following standard will apply:

   Unprofessional Conduct: That conduct which involves a breach of the duties required by professional ethics.

Notes: *1. If the University or a School or Faculty requires a student to discontinue his/her studies, that student must be advised of the nature of the case against him/her, must be provided with an opportunity to answer the case against him/her and must be advised of the right to appeal before the penalty imposed takes effect.*

2. Appeals against actions taken under Clause 2. should be directed to the Senate of the University. Any such appeal should be make in writing clearly stating the basis for the appeal and should be directed to the Secretary of Senate, c/o the Office of the Registrar.

3. Appeals against actions taken under Clause 3. should be directed to the Academic Council of the School of Graduate Studies.

1.2.14 Provision for Reapplication

1. A student whose program of studies has been terminated for any of the reasons outlined under **Termination of a Graduate Program** may apply for admission to a new program of studies leading to the same degree.

2. Notwithstanding the above, a student whose program of studies has been terminated under **Termination of a Graduate Program**, 1.e., shall be readmitted to the existing program only under the following conditions:

   a. on the recommendation of the appropriate academic unit;

   b. on the payment to the University of those registration fees which would have been payable had the student remained in continuous registration during the period since the termination of the program;

   c. on the understanding that the time period during which the student was not registered shall be considered as part of the maximum time permitted for the completion of the degree.

1.2.15 Graduate Diplomas

1. **Clinical Epidemiology** - See Master of Science in Medicine
2. **Community Health** - See Master of Science in Medicine
3. **Fisheries Resource Management** - See Master of Marine Studies
4. **Health Professional Education** - See Master of Education (Post-Secondary Studies)
5. **Post Masters Nurse Practitioner** - See Master of Nursing

2 Regulations Governing the Degree of Master of Applied Science

The degree of Master of Applied Science is offered in three areas: Computer Engineering, Environmental Engineering and Applied Science, and Environmental Systems Engineering and Management.

2.1 Computer Engineering

2.1.1 Program of Study

1. The Faculty of Engineering and Applied Science offers a program in Computer Engineering leading to the degree of Master of Applied Science in Computer Engineering (M.A.Sc.). The program is available only on a full-time basis.

2. The program is offered by the Faculty of Engineering and Applied Science and will be administered by a Board of Studies appointed by the Dean of Engineering and Applied Science.

2.1.2 Qualifications for Admission

1. Admission to the program is limited and competitive.

2. To be eligible for consideration for admission, applicants will have at least a second class engineering degree in computer engineering, computer science or electrical engineering; they will have background in many of the following areas: object-oriented programming, data structures, digital logic, computer organization, circuits & electronics, systems & signals, communications, discrete mathematics, probability & statistics and engineering design.

3. To be eligible for consideration for admission, applicants will meet the English Proficiency Requirements described under **English Proficiency Requirements**.

2.1.3 Degree Requirements

1. The degree program requires the completion of 36 credit hours, 6 of which comprise a project course.

   a. Students are required to complete 9801, 9859, 9861, 9865, 9867, 9871, 9874 and 9876.

   b. Three elective courses must be selected; each term the Board of Studies for the program will provide a selection of eligible courses, which may include ENGR 9821, ENGR 9822, ENGR 9868, ENGR 9869, ENGR 9872, ENGR 9875, ENGR 9877, ENGR 9878, ENGR 9879, ENGR 9880/83, ENGR 9888/91, CS 6752, CS 6756, PHYS 6102, and others designated by the Board of Studies for the program.

2. Normally students will take courses as shown in Table 1. Students wishing to take courses in another sequence must request approval from the Board of Studies for the program.

Table 1 - Program for the M.A.Sc. In Computer Engineering

	Preparation	Core	Elective
Year 1 Spring	English		
Year 1 Fall		3	0
Year 1 Winter		2	1
Year 2 Spring		2	1
Year 2 Fall		ENGR 9801	1

2.1.4 Evaluation

Students must obtain a grade of at least 65% in all program courses to receive credit for the course towards their program requirements. Any student, who fails to receive 65% or more in a course, must repeat the course in the case of core courses, or must either repeat or replace the course with another program course in the case of elective courses. Any student who receives a grade of less than 65% in two courses or in a repeated course will be required to withdraw from the program.

Courses

9801 Computer Engineering Project (6 credit hours)
9802/05 Special Topics in Computer Engineering
9806/09 Special Topics in Communications Engineering
9821 Digital Signal Processing
9822 Nonlinear Digital Image Processing & Analysis
9859 Computer Engineering Fundamentals
9861 High-Performance Computer Architecture
9865 Advanced Digital Systems
9867 Advanced Computing Concepts for Engineering
9868 ASIC Design
9869 Advanced Concurrent Programming
9871 Information Theory and Coding
9872 Digital Communications
9874 Software Design and Specification
9875 Embedded and Real-Time Systems Design
9876 Advanced Data Networks
9877 Computer and Communications Security
9878 Wireless and Mobile Communications
9879 Formal Specification and Development
9880-83 Special Topics in Computer Engineering
9888-91 Special Topics in Communications Engineering
Computer Science 6752 Applications of Computer Graphics
Computer Science 6756 Digital Image Processing
Physics 6102 Optics and Photonics

2.2 Environmental Engineering and Applied Science

2.2.1 Qualifications for Admission

1. Admission is limited and competitive. To be considered for admission, applicants shall normally hold a Bachelor's degree in Engineering or an Honours degree in Science with at least second class standing, or equivalent from an institution recognized by the Senate or shall have qualifications and/or experience acceptable to the Dean of Graduate Studies and the Board of Studies. The Board of Studies will make recommendations on admission to the Dean of Graduate Studies.
2. The Board of Studies will oversee academic aspects of students' programs on behalf of the Faculty Council of the Faculty of Engineering and Applied Science.

2.2.2 Program of Study

1. The Faculty of Engineering and Applied Science offers a program in Environmental Engineering and Applied Science leading to the degree of Master of Applied Science (M.A.Sc.). The program is available on a full-time or part-time basis and full-time students will normally complete the program in one year. Admission is open to students with Engineering or Science backgrounds. No financial support will be available to students admitted to the program.
2. The program is offered by the Faculty of Engineering and Applied Science and will be administered by a Board of Studies appointed by the Dean of Engineering and Applied Science.
3. The Master of Applied Science degree is a multi-disciplinary, professionally oriented degree which provides an advanced education for students who are already working, or who intend to work, in the environmental industry.

2.2.3 Degree Requirements

1. To the extent that resources permit, individual programs will be developed to suit students' interests and needs. However, all programs must be approved by the Board of Studies and the Dean of Graduate Studies. All **General Regulations** of the School of Graduate Studies shall apply to this degree.
2. The degree program requires the completion of 27 credit hours, six of which comprise a project course.
   a. Students are required to complete 960A and 960B.
   b. the remaining courses must be selected so that 6 credit hours are selected from 9601, 9603, 9609, and 9624; 3 credit hours are selected from 9605 and 9621; and 12 credit hours are selected from 9622, 9625, ENVE/ENVS 6000, ENVE/ENVS 6001, ENVE/ENVS 6002, ENVE/ENVS 6003, and Geography 6250.

Courses

960A/B Environmental Engineering Project

9601 Environmental Pollution and Mitigation (Cross listed as ENVS 6004)
9603 Environmental Sampling and Pollutant Analysis (Cross listed as ENVS 6005)
9605 Advanced Wastewater Treatment
9609 Environmental Risk Assessment (same as ENVS 6007)
9610-9615 Special Topics in Environmental Engineering and Applied Science
9621 Soil Remediation Engineering
9622 Environmental Statistics
9624 Air Pollution (same as ENVS 6008)
9625 Environmental Impact of Offshore Operations
ENVE/ENVS 6000 Environmental Science and Technology
ENVE/ENVS 6001 Earth and Ocean Systems
ENVE/ENVS 6002 Environmental Chemistry and Toxicology
ENVE/ENVS 6003 Applied Ecology
Geography 6250 Conservation of Natural Resources

2.3 Environmental Systems Engineering and Management

2.3.1 Program of Study

1. The Faculty of Engineering and Applied Science offers a program in Environmental Engineering and Applied Science leading to the degree of Master of Applied Science in Environmental Systems Engineering and Management (ESEM). The program is available on a full-time basis.
2. The program is offered by the Faculty of Engineering and Applied Science and will be administered by a Board of Studies appointed by the Dean of Engineering and Applied Science.

2.3.2 Qualifications for Admission

1. Admission is limited and competitive.
2. To be considered for admission, applicants shall normally hold a Bachelor's degree in engineering preferably in civil/environment/ chemical/processing/petroleum engineering or equivalent from a recognized university with an aggregate mark of 75% or above.
3. To be eligible for consideration for admission, applicants will meet the English Proficiency Requirements described under General Regulations **Qualification for Admission**.

2.3.3 Degree Requirements

1. The degree program requires the completion of 30 credit hours.
   a. 6 credit hours comprising a project course 9600.
   b. 15 credit hours comprised of 9601, 9609, 9626, 9627, and 9628.
   c. 6 credit hours (two courses) to be selected from 9603, 9621, 9622, 9624, 9625, 9629, and 9630, 9605, 9610-9615.
   d. 3 credit hours (one course) from ENVE/ENVS 6001, ENVE/ENVS 6002, ENVE/ENVS 6003, Geography 6250.

Courses
9600 Environmental Engineering Project (6 credit hours)
9601 Environmental Pollution and Mitigation (cross listed as ENVS 6004)
9603 Environmental Sampling and Pollutant Analysis (cross listed as ENVS 6005)
9605 Advanced Wastewater Treatment
9609 Environmental Risk Assessment (cross listed as ENVS 6007)
9610-9615 Special Topics in Environmental Science & Engineering
9621 Soil Remediation Engineering
9622 Environmental Statistics
9624 Air Pollution (cross-listed as ENVS 6008)
9625 Environmental Aspects of Offshore Oil and Gas
9626 Environmental Management System
9627 Environmental Systems Engineering
9628 Environmental Laboratory
9629 Environmental Policy and Regulations
9630 Pollution Prevention
ENVE/ENVS 6001 Earth and Ocean Systems
ENVE/ENVS 6002 Environmental Chemistry and Toxicology
ENVE/ENVS 6003 Applied Ecology
Geography 6250 Conservation of Natural Resources

3 Regulations Governing the Degree of Master of Applied Social Psychology (Co-operative)

This program is designed to meet the needs of both students and employers. Students will gain the skills and knowledge necessary to ask appropriate questions and conduct research in a variety of applied settings (e.g., business, government, health care, etc.). Students completing the program will be qualified for either immediate employment or further education. Students' and employers' needs will be met by a program that combines training in basic scientific methods and social psychological theory with practical experience in a variety of work settings. The training in methods and theory will be provided by the academic component of the program and the practical experience will be provided by the cooperative, work term component.

3.1 Qualifications for Admission

1. Admission to the program is competitive and selective. To be considered for admission to the Master of Applied Social Psychology (Cooperative) an applicant shall normally hold at least a high second class Honours degree or its equivalent, both in achievement and depth of study, from an institution recognized by the Senate.
2. Applications
   a. All applicants are required to submit results from the General section of the Graduate Record Examinations.

b. Applicants are required to submit with their applications an example of their academic writing. This could include, but is not limited to, papers submitted in class, honour's thesis, etc.

c. At least one letter of reference should come from someone who is familiar with the applicant's research capability.

3. Election will be based on an applicant's overall academic performance, scores on the Graduate Record Examination and letters of reference.
4. Admission to the program shall be upon acceptance by the Dean of Graduate Studies after recommendation by the Head of the Department of Psychology which will include a proposed program of study and a proposed supervisor.

3.2 Program of Study

1. Students should note that it is possible to enter Academic Term 1 only in the Fall semester commencing in September of each year.
2. Every candidate shall complete four Academic Terms in the Cooperative Program and shall normally be required to complete two Work Terms.
3. Courses shall be taken in Academic Terms of "blocks" in the sequence, order, and course load as follows:

   Fall: 6000, 6400
   Winter: 6001, 6401
   Spring: Work term 1
   Fall: 6402, 6403
   Winter: Work term 2
   Spring: 6404

3.3 Evaluation and Advancement

1. In order to continue in good standing in the program and in order to qualify for the Master's degree, a candidate shall obtain a grade of A or B for program courses, and complete two Work Terms.
2. The dates for starting and finishing each Work Term are shown in the University Diary. Successful completion of the Work Term requirements is a prerequisite to graduation.
3. A competition for Work Term employment is organized by the Co-operative Education Services Centre (CESC). Students may also obtain their own Work Term jobs outside the competition. Such jobs must be confirmed by letter from the employer and approved by the Head of Psychology and by the CESC on or before the first day of the Work Term.

   Work Term jobs may be outside St. John's and possibly outside Newfoundland and Labrador. Students who do not wish to accept a Work Term job arranged by CESC shall be responsible for finding an alternative acceptable to the Head of Psychology and the CESC.

   By entering the competition, students give permission for the CESC to supply their University transcripts to potential employers.
4. The overall evaluation of the Work Term is the responsibility of the CESC. The Work Term evaluation shall consist of two components:

   a. **On-the-job Student Performance**:

      Job performance shall be assessed by a co-ordinator using information gathered during the Work Term and input from the employer towards the end of the Work Term. Formal written documentation from the employer shall be sought.

   b. **The Work Report**:

      i. Work term reports shall be evaluated by a member of the CESC or a member of faculty in the Department of Psychology. If an employer designates a report to be of a confidential nature, both employer and co-ordinator must agree as to the methods to protect the confidentiality of such a report before the report may be accepted for evaluation.

      ii. Reports must be prepared according to American Psychological Association specifications and contain original work related to the Work Term placement. The topic must relate to the work experience and will be chosen by the student in consultation with the employer. For promotion from the Work Term, a student must obtain at least 65% in each component.
5. If a student fails to achieve the Work Term standards specified above the student will be required to withdraw from the program. Such a student may reapply to the program after lapse of two semesters, at which time the student will be required to complete a further Work Term with satisfactory performance before being admitted to any further academic term in the Faculty. A Work Term may be repeated once.
6. Students are not permitted to drop Work Terms without prior approval of the Graduate Studies Committee of the Department of Psychology, upon the recommendation of the CESC. The Graduate Studies Committee will make a recommendation to the Head of Department who will make the final decision. Students who drop a Work Term without permission, or who fail to honour an agreement to work with an employer, or who conduct themselves in such a manner as to cause their discharge from the job, will normally be awarded a failed grade for the Work Term. Permission to drop a Work Term does not constitute a waiver of degree requirements, and students who have obtained such permission must complete an approved Work Term in lieu of the one dropped.

Courses
6000 Advanced Statistics in Psychology
6001 Research Design
601W Work Term 1
602W Work Term 2
6400 Theory and Methods in Social Psychology
6401 Social Cognition
6402 Group Processes
6403 Advanced Methods in Applied Social Psychological Research
6404 Project in Applied Social Psychology

4 Regulations Governing the Degree of Master of Applied Statistics

The degree of Master of Applied Statistics (M.A.S.) is a highly structured program incorporating 18 credit hours in program courses and a practicum in applied statistics. The degree is offered in the Department of Mathematics and Statistics by full-time or part-time study.

4.1 Qualifications for Admission

1. Admission is limited and competitive. To be considered for admission to the Master of Applied Statistics program, an applicant shall

normally hold at least a high second class Honours degree or its equivalent, both in achievement and depth of study, from an institution recognized by the Senate.

2. In addition, an applicant shall normally have completed undergraduate courses in statistics which cover the material of Statistics 3521, 3530, 4410, 4520, 4560, 4561, 4590, 4591. If necessary, an applicant may be required to demonstrate a satisfactory knowledge of the above courses in an examination administered by the Department of Mathematics and Statistics.
3. Applicants who do not meet these requirements should consult the Department of Mathematics and Statistics about a program of further undergraduate courses. Such a program is intended to provide the candidate with an adequate statistical background. Such courses may not be used to fulfill the program course requirements of the Master of Applied Statistics degree.
4. Admission to the program shall be upon acceptance by the Dean of Graduate Studies after recommendation by the Head of the Department of Mathematics and Statistics along with a proposed program of study and a proposed supervisor.

4.2 Program of Study

The minimum requirements for the degree of Master of Applied Statistics are completion of the following:

1. Six credit hours from the following courses:

   6510 Mathematical Statistics, 6520 Linear Models, 6560 Continuous Multivariate Analysis, or 6561 Categorical Data Analysis
2. 6590 A course in Statistical Consulting
3. Nine additional credit hours selected from 6503-6589.
4. A practicum: An applied statistics project and an associated report. The report must demonstrate a satisfactory general mastery of statistical knowledge.

4.3 Evaluation

1. In order to continue in graduate studies and in order to qualify for a Master's degree, a candidate shall obtain an A or B for program courses and complete successfully the practicum requirement.
2. Statistics 6590 will be evaluated by the course co-ordinator in consultation with associated statistical consultants.
3. Evaluation of the practicum shall follow that of Masters Theses and Reports in Graduate Studies **General Regulations**.

Note: *Every candidate in graduate studies shall comply with the **General Regulations**, the degree regulations and any additional requirements of the Department of Mathematics and Statistics.*

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

Mathematics

6100 Dynamical Systems
6101 Modern Perturbation Theory
6102-6119 Special Topics in Applied Mathematics
6120 The Theoretical Fluid Dynamics
6121 Functional Differential Equations
6212 Numerical Methods for Initial Value Problems
6201 Numerical Methods for Partial Differential Equations
6202-6209 Special Topics in Numerical Analysis
6210 Numerical Solution of Differential Equations (for Computational Science students only - required core course)
6300 Algebraic Topology I (Homology Theory)
6301 Algebraic Topology II (Homotopy Theory)
6302 Algebraic Topology III (Theory of Fibre Bundles)
6332 Point Set Topology
6304-6309 Special Topics in Topology
6310 Functional Analysis
6311 Complex Analysis
6312 Measure Theory
6313-6319 Special Topics in Analysis
6320 Group Theory
6321 Ring Theory
6322 Nonassociative Algebra
6323 Homological Algebra
6324-6329 Special Topics in Algebra
6330 Analytic Number Theory
6331 Algebraic Number Theory
6340 Graph Theory
6341 Combinatorial Design Theory
6342 Advanced Enumeration
6343-6349 Special Topics in Combinatorics
6910 Topology Seminar
6940 Analysis Seminar
6950 Algebra Seminar

Statistics

6503 Stochastic Processes
6505 Survival Analysis
6510 Mathematical Statistics
6520 Linear Models
6530 Generalized Linear Longitudinal Mixed Models
6540 Time Series Analysis
6545 Statistical Computing
6550 Nonparametric Statistics
6560 Continuous Multivariate Analysis
6561 Categorical Data Analysis
6570-6589 Selected Topics in Statistics and Probability

6590 A Course in Statistical Consulting
6930 Statistics Seminar

5 Regulations Governing the Degree of Master of Arts and Specific Program Regulations

Professor and Dean of Arts
R. Tremblay

Associate Professor and Associate Dean (Graduate and Research)
É.L. Simms

The degree of Master of Arts is offered in Anthropology, Classics, Economics, English Language and Literature, Ethnomusicology, Folklore, French Studies, Geography, German Language and Literature, History, Linguistics, Philosophy, Political Science, Religious Studies and Sociology.

Applicants are advised to consult, in addition to the regulations governing the degree of Master of Arts, both the **General Regulations** and the particular regulations of the appropriate Departments.

5.1 Qualifications for Admission

1. Admission is limited and competitive. To be considered for admission an applicant shall hold a Bachelor's degree or its equivalent from an institution recognized by the Senate and shall have a knowledge of the proposed field of specialization satisfactory to the Department concerned (or Departments, when interdisciplinary study is intended) and to the Dean.
2. Preference will normally be given to applicants who hold an appropriate Honours degree, either from Memorial University of Newfoundland, or from another university whose Honours degree is of comparable standing. Any other applicant who holds a Bachelor's degree or its equivalent will 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 Department concerned satisfies the Dean that the applicant's work exhibits evidence of academic excellence.

   Only in exceptional circumstances, and only on the recommendation of the Department concerned, will the Dean consider applicants who do not meet the requirements in a. and b. Such applicants, however, must meet the requirements in c.
3. An applicant may be required to demonstrate a satisfactory knowledge of the proposed field of study in an examination administered by the Department or Departments.
4. In most cases instruction is in English, and examinations and theses are to be written in English. (Language Departments, however, give instruction in the pertinent language and often require examinations and theses to be written in the language. In addition, other Departments may permit or even require examinations and/or theses to be written in a language other than English).

5.2 Program of Study and Research

1. The program of study for the Master of Arts degree shall consist of the successful completion of a program of courses and, in accordance with departmental regulations, either of a thesis embodying systematic research or of a Comprehensive Examination.

   For programs requiring 24 credit hours or more, the academic unit may choose not to require a thesis or comprehensive examination.
2. Every candidate shall read at least 12 credit hours in program courses at the graduate level in one subject or in closely related subjects. Departmental regulations may require more courses than the minimum and this higher number is listed where applicable in the regulations of the Department.
3. Students may, with the approval of the Dean, augment their program with a limited number of other courses of their choice. Passing grades are not required in these non-program courses in order to continue in graduate studies or obtain a Master's degree.

   However, the final grades in these courses will be recorded on the student's transcripts. The grading system in non-program courses shall be that appropriate to the particular course.
4. Candidates submitting a thesis on an approved topic shall conduct systematic research under the direction of a Supervisor recommended by the appropriate Department or Departments and approved by the Dean. The candidate may be required to take an oral examination.
5. Changes in either the program of courses or the topic of the thesis require the approval of the Dean.
6. On the recommendation of the Head of the Department, the Dean may waive, in part, the course requirements for a Master's degree.
7. Application for transfer from the Master of Arts to the Master of Philosophy is to be made to the Dean before the end of the second semester in the case of full-time students, and in the case of part-time students before 18 graduate credit hours have been completed.
8. The Dean may approve an application to transfer from the M.A. to the M.Phil. only when a new integrated program, acceptable to the Dean, is submitted.

5.3 Evaluation

1. In order to continue in the School of Graduate Studies and in order to qualify for a Master's degree, a candidate shall obtain an A or B grade in each regulation course. Some candidates may be required to read a specified number of additional graduate or undergraduate courses for which a passing grade must be achieved.
2. Students registered for credit shall write their examinations in their graduate courses at a time to be determined by the Dean on the recommendation of the Department.
3. Students registered in undergraduate courses shall satisfy examination requirements in these courses.
4. When, on a basis of consultation with the candidate, the instructors in graduate courses, and the thesis supervisor, the Head of a Department has determined that the candidate's work has fallen below a satisfactory level, the Head may recommend to the Dean that the candidate be required to withdraw from the program.

5.4 Thesis or Report

See General Regulation, **Theses and Reports**

5.5 Anthropology and Archaeology

Professor and Head of the Department
P Pope

The degree of Master of Arts is offered in Anthropology by either full-time or part-time study.

1. Candidates may specialize in either:
   a. social and cultural anthropology or
   b. archaeology and physical anthropology.
2. The choice of speciality will govern the selection of supervisor(s), courses, and thesis or research paper topics. When candidates are accepted into the program, they will be assigned one or more supervisors. Candidates' programs shall be the responsibility of their supervisor(s), the graduate co-ordinator(s), and the Head of the department.
3. If candidates' records suggest a deficiency in some area(s), the Department reserves the right to require that they complete additional undergraduate courses before beginning program courses.
4. Candidates in social and cultural anthropology may choose between a thesis and a non-thesis option.

M.A. With Thesis

1. Normally, the M.A. program should take two academic years to complete, of which the first year will be spent in (a) completing coursework, (b) writing and orally defending a thesis proposal before members of the faculty, and ©) beginning to carry out research. The second academic year will be spent in (d) completing research, (e) presenting an oral research report to the Department, and (f) completing a thesis.
2. Candidates for the degree of a Master of Arts in Anthropology will be required to complete not fewer than 12 credit hours, nor more than 18 credit hours of courses at the graduate level.
3. Most Department graduate courses are taught in either a seminar or tutorial framework; all courses require intensive reading, regular oral communication of ideas to faculty and other students, and preparation of written research papers and other assignments.
4. Normally, during the second semester of the first year of study in the program, a written thesis proposal which has been approved by the student's supervisor(s) will be circulated to all members of the Department. The written thesis proposal should be made available to faculty members at least two weeks prior to the scheduled date of a student's oral presentation and defence of the proposal.
5. Shortly following the completion of their research, candidates will be required to present an oral research report on their findings to the Department.
6. A final draft of the thesis will be evaluated in accordance with the requirements of the School of Graduate Studies.

M.A. Without Thesis

Normally, the M.A. program without thesis should take one academic year to complete. Candidates in social and cultural anthropology who choose to do the M.A. without thesis must normally complete 24 credit hours in graduate program courses; 15 of which will normally be from S/C 6440, S/C 6890 and S/C 6300.* Nine additional credit hours are to be selected from the S/C graduate courses offered by the Department.

Note: ** S/C 6440 will be worth 9 credit hours. This course will normally be based on secondary literature and will be supervised by a faculty member.*

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow.

Archaeology/Physical Anthropology Courses (A/P)
6020 Physical Anthropology
6040 Human Osteology
6095 Advanced Studies in Ethnohistory (same as Hist 6095)
6151 Palaeoethnobotany
6181 Palaeoeskimo Cultures of the Eastern Arctic
6182 Advances in Material Culture Analysis
6187 Readings in Maritime Provinces Prehistory
6189 Palaeopathology
6191 Approaches to Early Modern Material Culture
6192 Conservation Method and Theory
6290 Newfoundland and Labrador Prehistory
6310 Economic Analyses in Archaeology
6320 Ethnoarchaeology
6330 Archaeological Field Conservation
6409 History of Archaeology
6411 Theory and Method in the Study of Archaeology and Prehistory
6500 Special Topics in Historical Archaeology (Prerequisite 6191)
6680-6699 Special Topics in Archaeology and Prehistory
6700 Interpretative Methods in Prehistoric Archaeology
6701 Interpretative Methods in Historical Archaeology
6890 Graduate Seminar

Social/Cultural Anthropology Courses (S/C)
6010 Cultural Ecology
6071 Health and Illness: Cultural Contexts and Constructions
6081 Anthropology of Gender
6089 Anthropology of Underclass Life
6100 Social Organization
6110 Culture and Personality
6140 The Community
6210 Language and Culture
6240 Atlantic Regional Studies

6260 Social and Economic Development
6280 Newfoundland Ethnography
6281 Labrador Ethnography
6282 Ethnography of a Single Region
6300 Fieldwork and Interpretation of Culture
6400 Current Themes in Cultural Anthropology
6410 History of Anthropology
6412 Anthropological Theory
6413 Applied Anthropology
6430 Audiovisual Anthropology
6440 Master's Research Paper (9 credit hours)
6580-6599 Special Areas in Anthropology
6600 Contemporary Debates in Anthropology
6890 Graduate Seminar

5.6 Classics

Associate Professor and Head of the Department
T.J. Allen

The Department of Classics offers an M.A. in Classics, with an emphasis on classical texts and research methods, which suitably prepared students may complete in 1 year of full-time study, normally beginning in September.

1. Applicants should have an Honours degree in Classics or a related field, including at least two years study in both Greek and Latin. Students expecting to complete the M.A. degree within 12 months must have at least 24 undergraduate credit hours in one language (Greek or Latin) and 18 undergraduate credit hours in the other. Other applicants may be required to take 3 or more credit hours at the undergraduate level, in addition to their graduate course work.
2. Students will complete 18 credit hours in courses at the 6000 level (including 6100 and 6101) plus any additional courses the department may deem necessary. The required courses 6100 and 6101 involve the intensive reading of ancient texts and also introduce students systematically to the most important research methods in Classics, including palaeography, textual criticism, bibliography, and historiography. Texts and methods chosen may vary according to the availability of instructors.
3. Students are also required to complete one of the following:
   a. Research Essay

      Students will complete a research essay (approximately 15,000 words), normally in the third semester of their program of study. The essay will be graded by two members of faculty and will be assigned a PASS/FAIL grade.

   b. Translation Examination

      Students will be required to pass two exams based on a reading list of Greek and Roman authors. One exam will be on Greek authors and one on Latin authors. The exams test students' ability to translate from Greek and Latin texts into English and will also require some commentary on the set texts. Students are expected to write these exams in the third semester of their program of study. The exam will be graded by two members of faculty and will be assigned a PASS/FAIL grade.
4. Students are required to complete an examination testing their competence in German, Italian or French, as early as possible in their program of study. This examination will be assigned a PASS/FAIL grade. (See **Evaluation, Evaluation of Graduate Students**, 4.)

Courses
6010 Greek Literature: Prose
6020 Latin Literature: Prose
6030 Greek Literature: Poetry
6040 Latin Literature: Poetry
6050 Greek History
6060 Roman History
6080 Ancient Philosophical Authors
6100 Greek Literature/Research Methods
6101 Latin Literature/Research Methods

Note: *The prerequisite of all 6000-level courses is at least three courses numbered 3000 and above (or equivalent) in the appropriate language.*

5.7 Economics

Professor and Head of the Department
N. Roy

The degree of Master of Arts is offered in Economics. The focus of the program is applied economics with emphasis on Natural Resource and Environmental Economics and Public Sector Economics. The program is designed so that suitably qualified full-time students can complete it in one year.

5.7.1 Qualifications for Admission

To be considered for admission, an applicant must normally have completed an undergraduate degree in economics at a Canadian university with at least second-class Honours standing, or its equivalent. Satisfaction of this criterion does not guarantee admission and, if admitted, students may be required to complete specified undergraduate courses as deemed necessary by the Department.

Applicants who do not satisfy the criterion above may also be considered for admission but, if admitted, will be required to complete specified undergraduate courses as deemed necessary by the Department.

5.7.2 Programs of Study

1. **Non-Thesis Option**
   a. The program of study requires, in addition to any specified undergraduate courses, completion of 24 credit hours in graduate economics courses, and a master's essay course. The maximum time normally permitted for students to satisfy these requirements is three years.
   b. The 24 credit hours in graduate courses consist of 9 credit hours in core courses: Economics 6000, 6001 and 6002, and 15 credit hours in other courses from those offered by the Department in Natural Resource Economics and Public Sector

Economics. Normally, the 24 required credit hours in graduate courses must be completed before the essay.

c. The master's essay, Economics 6999, must be in the area relating to the courses taken by the student. Students will be assigned a supervisor, who will approve the topic; the essay will be graded by the supervisor and one other member of the Department. The essay must be completed during the semester in which the student is registered in Economics 6999. During that time, students may be required to give a departmental seminar on their essays.

2. **Thesis Option**
   a. The thesis option consists of 18 credit hours and a thesis. The thesis will consist of a comprehensive study in the area of the student's field courses. The thesis must embody systematic research and demonstrate a mastery of economic principles and their application. Thesis work will be completed under a supervisor from the Department.
   b. The thesis must normally be completed within the two years following completion of 18 required credit hours, which must include Economics 6000, 6001 and 6002.
   c. The thesis will normally be evaluated internally and in accordance with the requirements of the School of Graduate Studies.

Courses

The following courses will be offered to meet the requirements of candidates, as far as resources of the Department will allow.

Core Courses
6000 Advanced Micro-economic Theory
6001 Advanced Macro-economic Theory
6002 Econometrics

Public Sector Economics Courses
6010 Taxation
6011 Expenditure
6012 Cost-benefit Analysis
6013 Fiscal Federalism
6014 Topics in Public Sector Economics

Natural Resource Economics Courses
6020 Economics of Nonrenewable Natural Resources
6021 Economics of Renewable Natural Resources
6022 Environmental Economics
6023 Advanced Fisheries Economics
6024 Topics in Resource Economics

Master's Essay Course
6999 Master's Essay

Note: *Additional courses may be arranged, so far as the exigencies of the Department allow, to meet the particular needs of candidates.*

5.8 English Language and Literature

Associate Professor and Head of the Department
R. Hollett

The degrees of Master of Arts and Doctor of Philosophy are offered in English Language and Literature.

Candidates for the M.A. in English may complete the program as either part-time or full-time students. Candidates for the Ph.D. in English must be in attendance as full-time students for at least three semesters of the program.

5.8.1 Master of Arts

1. Admission to the M.A. in English is limited and competitive. Applicants should have an Honours B.A. in English (or the equivalent, 60 credit hours in English with an appropriate range of courses) and a strong academic record.
2. Strong candidates who have come close to achieving Honours equivalency may be admitted on the condition that they complete such undergraduate courses as the Department may deem necessary, in addition to the required graduate courses.
3. Candidates who have not completed English 4900 or an equivalent course will be required to complete English 5900 which will not count as one of the required courses for the M.A. The course will be graded “pass” or “fail”. As in other graduate courses a grade of 65 or above is considered a pass.

5.8.2 Program of Study

1. **Thesis Option**
   a. Candidates completing the M.A. with thesis will complete a minimum of 15 credit hours in graduate courses, which will normally include English 7003, and a thesis.
   b. Candidates must submit a thesis proposal which includes a statement of topic, a working title, a plan of research, and a preliminary bibliography. The proposal should be approved by the Supervisor or Supervisors and submitted to the departmental Graduate Studies Committee for its approval by the end of the candidate’s third semester. The departmental Graduate Studies Committee shall return the thesis proposal to the candidate no later than one month after receiving it.
   c. Full-time students who choose the thesis option will usually complete their degree in two years.
2. **Non-Thesis Option**
   a. Candidates completing the M.A. without thesis will complete a minimum of 24 credit hours in graduate courses, which will normally include English 7003.
   b. Full-time students who choose the non-thesis option will usually complete their degree in one year.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow.

Notes: *1. Since it is impossible to list in detail the many topics that may from time to time be offered, the titles below refer only to the major periods and general subject areas in which specific courses may be available. The content and approach in specific courses will vary according to the research interests of students and faculty involved in the course. Students should consult the Department's annual Graduate Student Guide (or the Graduate Co-ordinator) for detailed descriptions of specific course offerings. Normally, no fewer than ten graduate courses are offered in any*

given academic year.

2. *English 5900 cannot be counted as one of the required graduate courses in any program.*
3. *All students will normally take English 7003 - Trends in Contemporary Literary Theory, usually in their first semester.*
4. *Students who took graduate courses in English at Memorial University of Newfoundland before 1997 should consult with the Department before selecting further courses.*

5900 Bibliography and Research Methods
6403 Etymology (same as Linguistics 6403)
6420 English Dialectology I
6421 English Dialectology II
6999 Master's Essay (for non-thesis students)
7003 Trends in Contemporary Critical Theory
7004 English Phonology and Morphology
7005 The Syntactic Structure of English
7032 Studies in Old English I
7033 Studies in Old English II
7034 Studies in Middle English I
7035 Studies in Middle English II
7036 Studies in Middle English III
7037 Studies in 16th-Century Literature I
7038 Studies in Old English II
7039 Studies in 16th-Century Literature III
7040 Studies in 16th-Century Literature IV
7041 Studies in 17th-Century British Literature I
7042 Studies in 17th-Century British Literature II
7043 Studies in 17th-Century British Literature III
7044 Studies in 17th-Century British Literature IV
7045 Studies in 18th-Century British Literature I
7046 Studies in 18th-Century British Literature II
7047 Studies in 18th-Century British Literature III
7048 Studies in 18th-Century British Literature IV
7049 Studies in 19th-Century British Literature I
7050 Studies in 19th-Century British Literature II
7051 Studies in 19th-Century British Literature III
7052 Studies in 19th-Century British Literature IV
7053 Studies in 20th-Century British Literature I
7054 Studies in 20th-Century British Literature II
7055 Studies in 20th-Century British Literature III
7056 Studies in 20th-Century British Literature IV
7057 Studies in Pre-19th Century American Literature
7058 Studies in 19th Century American Literature I
7059 Studies in 19th-Century American Literature II
7060 Studies in 19th-Century American Literature III
7061 Studies in 20th-Century American Literature I
7062 Studies in 20th-Century American Literature II
7063 Studies in 20th-Century American Literature III
7064 Studies in 20th-Century American Literature IV
7065 Studies in Pre-19th Century Canadian Literature
7066 Studies in 19th-Century Canadian Literature I
7067 Studies in 19th-Century Canadian Literature II
7068 Studies in 19th-Century Canadian Literature III
7069 Studies in 20th-Century Canadian Literature I
7070 Studies in 20th-Century Canadian Literature II
7071 Studies in 20th-Century Canadian Literature III
7072 Studies in 20th-Century Canadian Literature IV
7073 Studies in Newfoundland Literature I
7074 Studies in Newfoundland Literature II
7075 Studies in Newfoundland Literature III
7076 Studies in Anglo-Irish Literature I
7077 Studies in Anglo-Irish Literature II
7078 Studies in Modern Drama
7079 Studies in Post-Colonial Literature I
7080 Studies in Post-Colonial Literature II
7081 Studies in Post-Colonial Literature III
7082 Studies in Critical Theory I
7083 Studies in Critical Theory II
7084 Studies in Critical Theory III
7085 Special Readings in English I
7086 Special Readings in English II
7087 Special Readings in English III
7020-25 Special Topics in English

5.9 Ethnomusicology

Professor and Director of the School of Music
T. Gordon

Associate Professor and Program Co-ordinator
K. Szego

The Master of Arts program in Ethnomusicology is administered by the School of Music in consultation with the Department of Folklore, and generally in response to recommendations from an Interdisciplinary Advisory Committee with representation from both academic units, chaired by the Program Co-ordinator.

The degree of Master of Arts in Ethnomusicology is offered by part-time and full-time study. While it is normally a course work degree, a thesis option is available upon application. Fieldwork is often a requirement both for independent research and course work. The resources of the Memorial University of Newfoundland Folklore and Language Archive are available to graduate students in Ethnomusicology.

5.9.1 Qualifications for Admission

Applicants may be admitted to the program if they have at least a B+ average with a B.Mus. degree or other degree in the Humanities or Social Sciences with evidence of specialization in music. Applicants whose professional music training took place outside the university system are also encouraged to apply, provided they have the academic equivalent of the qualifications described above. Applicants from a discipline other than Music will be expected to demonstrate the following skills:

- Competent performance in any musical tradition, as judged by a musician knowledgeable about that tradition.
- Knowledge of culturally appropriate language for discussion of performance techniques in that tradition.
- Ability to discuss musical details on the basis of aural and/or written sources, as appropriate to that tradition.

Candidates for admission may, at the discretion of the Interdisciplinary Advisory Committee, be required to write diagnostic examinations measuring skills and knowledge in music literacy, theory, or aural perception. Candidates with deficiencies in any of these areas may be required to take remedial course work prior or in addition to the required program.

5.9.2 Program Requirements

The M.A. program will normally be completed within five consecutive semesters of full-time study. The degree is normally taken by completing course work and a major research paper. In special circumstances, a student may apply to complete the degree by completing course work and a thesis. Demonstration of competence in a language other than English may be required if warranted by the research proposed by the student.

1. **Course work M.A.**
   a. Students must normally complete a minimum of 24 credit hours plus a major research paper (Music 7002). Further courses beyond the minimum number may be required, depending on the background of the student. The required courses are:
      i. Music 7001; Folklore 6010, 6030.
      ii. One of Folklore 6100 or Music 6002.
      iii. One area or genre studies course (3 credit hours) relevant to the research of the student.
      iv. Nine credit hours to be selected from the Music and Folklore courses listed below (with the approval of the Interdisciplinary Advisory Committee); one elective (3 credit hours) may be a relevant course offered in another discipline (with the approval of the Interdisciplinary Advisory Committee).
   b. Research paper (Music 7002) on a topic chosen by the student with his/her supervisor's approval. Proposals for topics and supervisors will be vetted by the Interdisciplinary Advisory Committee no later than the beginning of the third term of study. The paper will normally demonstrate the student's ability to apply methodologies and theoretical constructs, learned in the courses taken, to a specific repertory, or performance context.
2. **Thesis M.A.** (available by special application to the Interdisciplinary Advisory Committee)
   a. Students must normally complete a minimum of 21 credit hours plus a thesis. The required courses are:
      i. Music 7001; Folklore 6010, 6030.
      ii. One of Folklore 6100 or Music 6002.
      iii. One area or genre studies course (3 credit hours) relevant to the research of the student.
      iv. Six credit hours to be selected from the Music and Folklore courses listed below (with the approval of the Interdisciplinary Advisory Committee); one elective (3 credit hours) may be a relevant course offered in another discipline (with the approval of the Interdisciplinary Advisory Committee).
   b. Thesis submitted in accordance with General Regulation **Theses and Reports** of the School of Graduate Studies. A thesis proposal, consisting of a statement of topic, working title, plan of research, and preliminary bibliography, with the name of the preferred supervisor, shall be submitted by the candidate to the Interdisciplinary Advisory Committee no later than the beginning of the third term of study.

Courses

Theories and Methods:
Music 6001 Research Methods
Music 6002 Graduate Seminar
Music 7001 Research Problems and Methods in Ethnomusicology
Music 7002 Research Paper
Folklore 6010 Survey of Folklore Genres and Processes
Folklore 6020 Field and Research Methods
Folklore 6030 Folklore Theories
Folklore 6040 Feminist Theories: Perspectives and Issues
Folklore 6080 Vernacular Theories
Folklore 6090 Ethnology
Folklore 7100 Advanced Folkloristics II: Research and Ethnography

Form and Performance:
Music 7005 Performance Option
Folklore 6100 Song and Music
Folklore 6120 Ballad
Folklore 6130 Folk Music Canons and Documentary Sound Recordings
Folklore 6200 Folktale
Folklore 6210 Legend
Folklore 6220 Personal Experience Narrative
Folklore 6250 Language and Play
Folklore 6260 Ethnography of Communications
Folklore 6300 Ethnography of Belief
Folklore 6310 Health Systems
Folklore 6350 Custom

Folklore 6360 Traditional Drama
Folklore 6400 Material Culture
Folklore 6410 Vernacular Architecture
Folklore 6420 Art and the Artifact
Folklore 6430 Food and Culture
Folklore 6720 Folklore and Literature

Area and Genre Studies:
Music 7010 World Music: Music of Asia and Oceania
Music 7011 World Music: Music of Africa and the Americas
Music 7012 Canadian Musical Traditions
Music 7013 Music and Culture
Music 7017 Folksong
Music 7018 Jazz and Blues: The Roots of Popular Music
Folklore 6120 Ballad
Folklore 6600 Folklore of Newfoundland
Folklore 6610 Folklore of Canada
Folklore 6620 Folklore of the United States
Folklore 6630 Folklore of the British Isles
Folklore 6770 The Global and the Local

Social Identities:
Music 7006 Urban Ethnomusicology
Music 7007 Music in the Study of Gender, Race and Class
Music 7009 Music and Place
Folklore 6510 Occupational Folklore
Folklore 6551 Indigenous Expressive Cultures in Cross-cultural Encounter
Folklore 6730 Folklore and Gender
Folklore 6780 Ethnicities

Public and Applied Ethnomusicology and Folklore:
Music 6700 Music Industries Seminar
Music 6750 Music Industries Internship (2 cr. hrs.)
Folklore 6740 Public Sector Folklore
Folklore 6760 Archiving
Folklore 6790 Museums: Perspectives and Practices
Folklore 6800 Applied Folklore

Interdisciplinary Perspectives:
Music 7008 Media Studies
Folklore 6700 Folklore and Culture
Folklore 6710 Oral Tradition and Oral History
Folklore 6750 Popular Culture: Theory and Debate

Independent Study:
Music 7026-29 Directed Reading in Ethnomusicology
Folklore 6570-79 Reading Courses in Folklore

Special Topics:
Music 6800-09 Special Topics in Music
Music 7800-09 Special Topics in Music
Folklore 6511-29 Special Topics in Folklore
Folklore 6570-79 Reading Course in Folklore

5.10 Folklore

Associate Professor and Head of the Department
M. Lovelace

The degree of Master of Arts in Folklore is offered by part-time and full-time study and is a combined course work and research degree. The program normally requires extensive fieldwork research in Newfoundland and/or the Maritimes.

Integral to the teaching of the Department of Folklore is work of the Memorial University of Newfoundland Folklore and Language Archive; see following section.

5.10.1 Master of Arts

1. Applicants may be admitted to the graduate program if they have an average of at least grade "B" in no fewer than 36 credit hours in Folklore or in any other discipline in the Humanities or Social Sciences.
2. The M.A. program will normally be completed within six consecutive semesters (i.e. a two-year period). The degree of Master of Arts in Folklore may be taken by course work and comprehensive examination or by course work and thesis. Both options are available to full-time and part-time students.
   a. **M.A. with thesis:**
      i. Students choosing to do the M.A. with thesis must normally complete a minimum of 24 credit hours plus a thesis. The required courses are:
         - 6010, 6020, and 6030, normally taken as an integrated foundation in the Fall semester.
         - At least one of the following: 6100, 6120, 6130, 6200, 6210, 6220, 6250, 6260, 6360, 6720.
         - At least one of the following: 6300, 6310, 6350, 6370, 6400, 6410, 6420, 6430.
         - Nine additional credit hours to be selected from courses in the groups listed above or from the other courses offered by the Department.
      ii. A brief thesis pre-proposal, including a statement of topic, working title, plan of research, ethics statement, preliminary bibliography, and the name of a preferred Supervisor, shall be submitted no later than the end of the candidate's second semester. A full proposal shall normally be submitted to the Department of Folklore at the end of the candidate's fourth

semester. Following approval of the thesis proposal and consultation with the candidate, the Supervisor and thesis topic will be recommended to the Dean.

b. **M.A. without thesis:**

i. Students choosing to do the M.A. without thesis must normally complete a minimum of 30 credit hours plus comprehensive examination. The required courses are:

- 6010, 6020, and 6030, normally taken as an integrated foundation in the Fall semester.
- At least one of the following: 6100, 6120, 6130, 6200, 6210, 6220, 6250, 6260, 6360, 6720.
- At least one of the following: 6300, 6310, 6350, 6370, 6400, 6410, 6420, 6430.
- Fifteen additional credit hours to be selected from courses in the groups listed above or from the other courses offered by the Department.

ii. Each candidate selecting the M.A. without thesis option shall normally submit, by the end of the candidate's second semester, written notification of intention to take comprehensives.

iii. Each candidate selecting the non-thesis option shall normally write the comprehensive examination at the end of the candidate's fifth semester in the program. The comprehensive examination will be graded by a comprehensive examination committee appointed by the Dean of Graduate Studies on the recommendation of the Head of the Department, in accordance with General Regulations governing the School of Graduate Studies.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, normally after consultation with the Head of the Department or the Graduate Studies Administrator, and as far as the resources of the Department will allow. Courses are structured according to the categories of: Theories and Methods, Issues, Form and Performance, Special Topics, Regional, National and International Heritage, Social Identities, Public and Applied Folklore, Interdisciplinary Perspectives, and Required (Ph.D.):

Theories and Methods

6010 Survey of Folklore Genres and Processes
6020 Field and Research Methods
6030 Folklore Theories
6040 Feminist Theories: Perspectives and Issues
6080 Vernacular Theories
6090 Ethnology

Issues

6050 Issues in Folkloristics
6060 Issues in Folk Literature
6070 Issues in Folklife

Form and Performance

6100 Song and Music
6120 Ballad
6130 Folk Music Canons and Documentary Sound Recordings
6200 Folktale
6210 Legend
6220 Personal Experience Narrative
6250 Language and Play
6260 Ethnography of Communications
6300 Ethnography of Belief
6310 Health Systems
6350 Custom
6360 Traditional Drama
6370 Ritual, Festival and Public Display
6400 Material Culture
6410 Vernacular Architecture
6420 Art and the Artifact
6430 Food and Culture
6720 Folklore and Literature

Special Topics

6511-29 Special Topics in Folklore
6550 Special Research in Folklore
6551 Indigenous Expressive Cultures in Cross-cultural Encounter
6552-69 Special Research in Folklore
6570-79 Reading Course in Folklore

Regional, National and International Heritage

6600 Folklore of Newfoundland
6610 Folklore of Canada
6620 Folklore of the United States
6630 Folklore of the British Isles
6640 Traditional Culture of Scotland
6650 Culture and Traditions of Ireland
6660 Folklore of the Francophone Regions
6690 International Folklore

Social Identities

6510 Occupational Folklife
6730 Folklore and Gender
6770 The Global and the Local
6780 Ethnicities

Public and Applied Folklore

6740 Public Sector Folklore
6760 Archiving
6790 Museums: Perspectives and Practices

6800 Applied Folklore

Interdisciplinary Perspectives
6700 Folklore and Culture
6710 Oral Tradition and Oral History
6750 Popular Culture: Theory and Debate

Required (Ph.D.)
7000 Advanced Folkloristics I
7100 Advanced Folkloristics II Research and Ethnography

Note: *Credit may not be obtained for both 6010 and the former 6110; 6020 and the former 6111; 6030 and the former 6112; 6100 and the former 6430; 6120 and the former 6445; 6300 and the former 6230; 6350 and the former 6230; 6400 and the former 6501; 6720 and the former 6460.*

5.10.2 Folklore and Language Archive

Chairman, Advisory Committee
Dean of Arts, R. Tremblay

Director
Martin J. Lovelace

Archivist
Patricia Fulton

Honorary Research Associate (Folklore)
(Mrs.) Violetta M. Halpert

Honorary Research Associate (Language and Folklore)
J.D.A. Widdowson

The Memorial University of Newfoundland Folklore and Language Archive was a joint creation of the Departments of Folklore and English Language and Literature. It was set up to co-ordinate diverse research in Newfoundland studies undertaken in both Departments, to facilitate the mutual use of common material, to organize it for research and publication, and to make a permanent documented record for future generations. The Folklore and Language Archive is an integral part of the teaching and research activities of the Department of Folklore on both the graduate and undergraduate levels.

The Archive comprises extensive collections of Newfoundland and Labrador folksongs and music, folk narratives of many kinds, oral history, folk customs, beliefs and practices, childlore and descriptions of material culture. It has special collections of the Newfoundland vocabulary, proverbs and riddles and collections towards a linguistic atlas. The materials have been collected by a variety of means: by questionnaires, by student contributions in manuscript, by extensive field work utilizing tape recorders, and by searching printed sources.

The Archive is housed in the G.A. Hickman Building. Associated with it is a recording room, with facilities for copying tapes and records and for the making of recordings. The specially excerpted collection in language is housed in the English Language Research Centre of the Department of English Language and Literature. Newfoundland French language and folklore materials are housed in the Centre d'Etudes Franco-Terreneuviennes in the Department of Folklore. Each Department has a working library associated with the archival material.

5.11 French

Professor and Head of Department
M. O'Reilly

1. The degree of Master of Arts in French Studies may be completed by full-time or part-time study. "French Studies" may take the form of the study of the French language or of francophone literature, including the study of literary history, criticism or theory. It may also include the study of French-language cinema or of other aspects of francophone civilization.
2. Applicants for the M.A. program in French Studies are normally expected to have completed the Honours degree with a second-class standing or better. An applicant who does not hold an Honours degree or its equivalent may be required to complete such additional undergraduate courses as the Department considers necessary, prior to admission or as part of the program.
3. The M.A. program in French Studies will consist of 15 credit hours in graduate courses (normally requiring 2 or 3 semesters of full-time study), plus research activities and a thesis of approximately 80 pages. The 15 credit hours shall include 6008 and 6009, normally completed in consecutive semesters. The remaining 9 credit hours shall be obtained by completion of three courses chosen from those in three of the five groups listed in the **Courses** section below. The language of the thesis will be French. The thesis proposal, after being approved by the supervisor, will be submitted by the candidate, normally before the end of the third semester of studies, to the departmental Graduate Studies Committee, who will decide whether or not to grant its approval.
4. Each candidate's program of study must be approved by the departmental Graduate Studies Committee.
5. A paper drawn from the thesis will be presented at a departmental seminar or in another forum approved by the departmental Graduate Studies Committee. Normally, this presentation will take place at some time between submission of the final draft thesis to the supervisor and the submission of the thesis to the School of Graduate Studies.
6. The approval of the departmental Graduate Studies Committee must be obtained before the thesis is forwarded to the School of Graduate Studies for examination.
7. In the final version of the M.A. thesis and other written assignments for M.A. courses, the quality of written French must be of a standard acceptable to the department as represented by the Graduate Studies Committee. Normally, this will mean that the final version of such assignments will be free of spelling, lexical, and grammatical errors, and of improper use of stylistic conventions. In the case of the M.A. thesis, this requirement applies to the version submitted for examination.

Courses

A selection of the following graduate courses will be offered to meet candidates' requirements, as far as the resources of the Department will allow:

6008* Literary Methodology and Theory (Critical and Theoretical Methodology I)
6009* Literary Methodology and Theory (Critical and Theoretical Methodology II)

French Course for Students in Other Disciplines
6900 Reading in French for Students in Other Disciplines

Historiographical, Genetic, Thematic, Hermeneutical or other historical or critical approaches to French Studies
6032 Genetic Criticism and Exegesis
6102 History of the French Language

Psychoanalytical, Ethnological or Anthropological approaches to French Studies
6020 Literature and Psychoanalysis
6021 Mythocriticism
6130-39 Personal/Intimate Literature

Sociological or Socio-historical approaches to French Studies
6022 History, Society, Ideology and Texts
6101 The Female Voice; Women's Writing and its Contribution to the Development of French and Francophone texts
6110-19 Paraliterature and Traditional Culture

Linguistic, Semiotic, Poetic, Rhetorical or Pragmatic approaches to French Studies
6011 General Theory of the French Language
6030 Grammar of the Text
6031 Narratology
6140-49 Genres and Discursive Forms

Other approaches to French Studies
6120-29 Texts/Images/Sounds
6150-59 Special Topics

Note: **Credit may not be obtained for both French 6008 and the former French 6006; or for both French 6009 and the former French 6006.*

Français

Professeur et directeur du département

M. O'Reilly

1. Le diplôme de Maîtrise ès Arts en Études françaises sanctionne des études à temps plein ou à temps partiel. Les études françaises comprennent l'étude de la langue et de la littérature et l'étude de l'histoire, de la critique ou de théorie littéraire, ainsi que l'étude du cinéma ou d'autres aspects des civilisations francophones.
2. Pour être admis au programme de Maîtrise ès Arts en Études françaises, l'étudiant doit normalement détenir un diplôme de baccalauréat avec une spécialisation en Études françaises et une note moyenne d'au moins B. Le département pourra obliger toute personne ne détenant pas ce diplôme ou son équivalent à suivre certains cours du premier cycle avant d'être admis au programme de deuxième cycle ou pendant ses études de maîtrise.
3. L'option en Études littéraires comprend quinze crédits de cours, ce qui exigera normalement 2 ou 3 trimestres d'études à temps plein et un mémoire d'environ 80 pages rédigé en français. Tous les candidats compléteront et le Fr.6008 et le Fr.6009.

   Normalement, ces deux cours devront être complétés en deux trimestres consécutifs. En plus, il faudra compléter 3 cours choisi parmi ceux qui font partie de 3 des 5 groupes identifiés dans la section **COURS**. Le projet de mémoire, qui est approuvé par son directeur, doit être officiellement présenté par le candidat au Comité des Études de deuxième cycle, avant la fin du troisième trimestre, pour son approbation.
4. Le programme d'études du candidat doit être approuvé par le Comité des Études de deuxième cycle.
5. Une communication tirée du mémoire sera présentée dans le cadre des séminaires départementaux ou dans une autre réunion approuvée par le Comité des Études de deuxième cycle. Normalement, cette présentation se fera entre la soumission à son directeur et sa soumission définitive à l'École des Études supérieures.
6. Avant d'être soumis à l'École des Études supérieures, le mémoire doit être proposé au Comité des Études de deuxième cycle, qui doit en autoriser le dépôt.
7. Dans la version finale du mémoire et des autres travaux préparés pour les cours de maîtrise, la qualité du français écrit doit être d'un niveau acceptable au département, qui est représenté par le Comité des Études de deuxième cycle. Ainsi, la version finale de ces travaux ne contiendra-t-elle pas, normalement, d'erreurs orthographiques, lexicales, grammaticales, stylistiques et protocolaires. Pour ce qui est du mémoire, cette exigence s'applique à la version remise aux examinateurs.

Cours

Un choix des cours de deuxième cycle suivants sera offert afin de répondre aux besoins des étudiants inscrits au programme de maîtrise selon les ressources disponibles au département:

6008* Méthodologie et théorie de la littérature (Méthodes critiques et théoriques I)
6009* Méthodologie et théorie de la littérature (Méthodes critiques et théoriques II)

Cours de français pour étudiants d'autres disciplines
6900 Cours de français pour étudiants d'autres disciplines

Approche historiographique, génétique, thématique, herméneutique ou autrement historique ou critique:
6032 Génétique et critique
6102 Histoire de la langue française

Approche psychanalytique, ethnologique ou anthropologique:
6020 Psychanalyse et littérature
6021 Mythocritique
6130-39 Littérature personnelle/intime

Approche sociologique ou socio-historique:
6022 Histoire, société, idéologie et textes
6101 La voix féminine et le féminisme
6110-19 Paralittérature et cultures traditonnelles

Approche linguistique, sémiotique, poétique, rhétorique ou pragmatique:
6011 Théorie générale de la langue française
6030 Grammaire du texte
6031 Narratologie
6140-49 Discours et genres

Autres approches aux Études françaises:
6120-29 Textes/Images/Sons

6150-59 Sujets spéciaux

* Nota / Note: *Les étudiants ne peuvent obtenir de crédit pour le Français 6008 et le Français 6006 (désormais supprimé) ni pour le Français 6009 et le Français 6006.*

5.12 Geography

Professor and Head of the Department

K. Storey

1. The degrees of Master of Arts and Master of Science are offered in Geography by full-time or part-time study.
2. Admission requirements are set forth in the **General Regulations** of the School of Graduate Studies and Degree Regulations for Master of Arts and Master of Science.
3. The deadline for submission of applications for admission is January 15. Candidates will normally commence their programs in the Fall semester.
4. An applicant will be admitted to a graduate program only if a faculty member agrees to act as supervisor. A supervisory committee will be established after admission, normally consisting of the supervisor and two other individuals, one of whom will normally be a member of the Department.
5. Major research areas for graduate study at the master's level are cultural, historical, economic, urban, resource management, regional development, geomorphology, Quaternary environments, climatology and geographic information sciences.
6. Candidates will register for the M.A. program if their fields of interest lie in an area of Human Geography or for the M.Sc. if their fields of interest are in Physical Geography or Geographic Information Sciences.
7. It is expected that the program of study and research for the M.A. or M.Sc. will normally be completed in a maximum of two years of full-time work, or three years of part-time work.
8. Candidates must successfully complete a minimum of 12 credit hours of graduate program courses with a minimum grade of B in each. Geography 6000 will be a required course for all candidates who have not already completed an equivalent course at the Honours or post-graduate level.
9. Candidates whose undergraduate degree is not in geography will be required to complete some additional undergraduate program courses during their first year of study, in addition to the required graduate program courses. Normally four such undergraduate courses will be required, and a minimum grade of 70% must be obtained in each.
10. Each candidate will be required to present a seminar on their research to the Department.
11. Each candidate must submit a thesis based on their own original research. This thesis will be examined in accordance with the **General Regulations** of the School of Graduate Studies.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates as far as the resources of the Department will allow:

6000 Development of Geographical Thought
6100 Research Techniques in A Selected Field of Geography I
6101 Research Techniques in A Selected Field of Geography II
6120 Spatial Pattern Analysis and Computer Mapping
6150 Environmental Remote Sensing and Image Analysis
6200 Economic Geography I: Location Theory
6201 Economic Geography II: Regional Development
6202 Economic Geography III: Problems in Transportation
6203 Economic Geography IV: Land Use Pattern Analysis
6250 Conservation of Natural Resources
6300 Problems in Fisheries Geography
6301 Methodologies of Fisheries Geography
6400 Fluvial Geomorphology
6401 Glacial Geomorphology
6403 Hydrology
6410 Climatology
6420 Chronologies in Physical Geography
6430 Biogeography
6500 Cultural Geography
6510 Ethic Group Settlement in the New World
6550 Population
6600 Historical Geography
6700 Political Geography
6800 Urban Geography
6801 Spatial Aspects of Urbanization and City System Development
6802 Internal Structure of Cities
6820 Cartographic Design
6830 Cartographic Production
6900 Graduate Seminar in Regional Geography
6990-95 Special Topics in Geography

5.13 German

Associate Professor and Head of the Department

E. Warkentin

The degrees of Master of Arts and Master of Philosophy are offered in German Language and Literature and may be taken by full-time or part-time study. No graduate work is offered in Russian at this time.

1. Candidates for the M.A. degree in German are normally expected to have completed an Honours degree with a minimum of second-class standing. In addition to the general requirements, candidates will be expected to have acquired a superior knowledge of the spoken and written language and may, depending on their academic background and field of specialization, be asked to take advanced undergraduate courses.

2. All candidates will complete at least 15 credit hours and a thesis in accordance with the Graduate Studies **General Regulations** for the M.A. and at least 30 credit hours for the M.Phil., and the entire program of study and research will normally be of two-years' duration.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

6000 German Civilization I
6001 German Civilization II
6100 History of the German Language I
6101 History of the German Language II
6200 Medieval German Literature I
6201 Medieval German Literature II
6300 German Literature, 1500-1700 I
6301 German Literature, 1500-1700 II
6400 German Literature of the Enlightenment and Storm and Stress I
6401 German Literature of the Enlightenment and Storm and Stress II
6500 German Classicism I
6501 German Classicism II
6600 German Romanticism I
6601 German Romanticism II
6700 German Realism I
6701 German Realism II
6800 German Literature, 1880-1933 I
6801 German Literature, 1880-1933 II
6900 Contemporary German Literature I
6901 Contemporary German Literature II
7000 Special Subject or Author I
7001 Special Subject or Author II
7002-7020 Special Topics in German Studies

Deutsch

Professor und Vorstand der Abteilung
E. Warkentin

Auf dem Gebiet der Germanistik werden die Grade Master of Arts (Magister Artium) und Master of Philosophy (Magister Philosophiae) geboten. Sie können sowohl von voll- wie auch von halbzeitlich Studierenden erworben werden. Auf dem Gebiet der Slawistik wird z.Zt. kein weiterführendes Studium geboten.

1. Kandidaten für den Master of Arts sollten ein Honoursprogramm absolviert und mindestens mit einem "B" abgeschnitten haben. Ausser den allgemeinen Zulas-sungsbestimmungen wird von den Kandidaten überdurch-schnittliche Kenntnis des Deutschen in Sprache und Schrift erwartet. Ihrer akademischen Vorbildung und ihrem Fachgebiet entsprechend kann ihnen eventuell geraten werden, gleichzeitig fortgeschrittene Kurse der Unterstufe zu belegen.
2. Für den Master of Arts sind mindestens 15, für den Master of Philosophy mindestens 30 Kreditstunden zu absolvieren. Das ganze Studienprogramm dauert normalerweise zwei Jahre.

Kurse

Von den hier aufgeführten Kursen für Graduierte wird jeweils eine Auswahl angeboten, die sowohl den Anforderungen des Studierenden wie den Möglichkeiten der Abteilung gerecht wird.

6000 Deutsche Kulturkunde I
6001 Deutsche Kulturkunde II
6100 Geschichte der deutschen Sprache I
6101 Geschichte der deutschen Sprache II
6200 Mittelhochdeutsche Literatur I
6201 Mittelhochdeutsche Literatur II
6300 Deutsche Literatur 1500-1700 I
6301 Deutsche Literatur 1500-1700 II
6400 Deutsche Literatur der Aufklärung und des Sturm und Drang I
6401 Deutsche Literatur der Aufklärung und des Sturm und Drang II
6500 Deutsche Klassik I
6501 Deutsche Klassik II
6600 Deutsche Romantik I
6601 Deutsche Romantik II
6700 Deutscher Realismus I
6701 Deutscher Realismus II
6800 Deutsche Literatur 1880-1933 I
6801 Deutsche Literatur 1880-1933 II
6900 Deutsche Gegenwartsliteratur I
6901 Deutsche Gegenwartsliteratur II
7000 Wahlthema oder-Autor I
7001 Wahlthema oder-Autor II
7002-7020 Wahlthemen in German Studies

5.14 History

Professor and Head of the Department
C. Youé

The degrees of Doctor of Philosophy and Master of Arts are offered in History by full-time or part-time study.

5.14.1 Master of Arts

1. Studies at the MA level are available in Canadian and maritime history, in the history of Newfoundland and Labrador, and in the

history of the North Atlantic, the United States, Britain, Germany and France.

2. Candidates for the MA shall complete a minimum of 24 credit hours, 18 of which shall normally be 6180, 6200, 6210 and 6999.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates as far as the resources of the Department will allow:

6000 Advanced Studies in Newfoundland History
6010 Advanced Studies in Canadian History
6020 Advanced Studies in the History of the United States
6030 Advanced Studies in French History
6040 Advanced Studies in British History
6050 Advanced Studies in German History
6060 Advanced Studies in North Atlantic History
6070 Advanced Studies in Social History
6075 Advanced Studies in Labour and Working-Class History
6080 Advanced Studies in Intellectual History
6090 Advanced Studies in Women's History
6095 Advanced Studies in Ethnohistory
6100 Advanced Studies in Military History
6105 Advanced Studies in Diplomatic History
6110 Advanced Studies in Maritime History
6120 Advanced Studies in Economic and Business History
6125 Medical Science and Social Responsibility in Health Care: Aspects of Medical History *(cross listed as Medicine 6420)*
6130 Quantification and Measurement in History
6140-59 Research in Special Topics
6160-79 Reading Courses (Special Topics)
6180 Seminar in Historiography
6200 Masters Seminar I
6210 Sources, Methods and Criticism: Practising History
6999 Masters Research Paper (9 credit hours)

5.15 Linguistics

Associate Professor and Head of the Department
M. Mackenzie

The degrees of Master of Arts and Doctor of Philosophy are offered in Linguistics.

5.15.1 Master of Arts

1. The Linguistics department offers the M.A. program with both a thesis and a non-thesis option. The M.A. with thesis option is intended for those who have completed an undergraduate major in Linguistics with satisfactory standing (a B+ average in Linguistics courses). Students interested in the thesis option who have an excellent undergraduate record and a well-defined research plan, yet who do not possess the equivalent of an undergraduate major, will be required to take additional undergraduate and/or graduate courses in Linguistics. Other students are encouraged to apply for the M.A. without thesis option.
2. The M.A. with thesis option is normally a two-year program consisting of at least 15 credit hours of graduate courses (including Linguistics 7000 and 7001), plus a thesis.
3. The M.A. without thesis option is normally a two-year program consisting of at least 21 credit hours of graduate courses (including Linguistics 7000 and 7001), plus a research project (Linguistics 6999), which consists of a major research paper in an approved area followed by an oral examination.
4. The M.A. in Linguistics requires proficiency in a language other than the candidate's first language, as demonstrated by a minimum B grade in a second-year undergraduate language course, or performance satisfactory to the department in an arranged reading proficiency test. A working or structural knowledge of other languages may also be required for particular programs (e.g., Latin, Greek or Sanskrit for historical Indo-European linguistics, or courses in the series Linguistics 6050-59 or the former 6010-6041).
5. All M.A. students are advised to consult the Linguistics department's Graduate Handbook for details on program requirements and for general information relating to the graduate program.

Courses

A selection of the following graduate courses will be offered to meet the requirements of students, as far as the resources of the Department will allow. Full information is to be found in the Department's Graduate Brochure.

6001 Issues in Morphosyntax
6050-54 Structure of a North American Aboriginal Language
(Credit restriction: Except where an exemption is supplied by the head of the department, a student may not obtain credit for more than one course in the 6050-54 series. Students may not obtain credit for any of the previously offered 6010, 6011, 6020, 6021, 6030, 6031, 6040, 6041 in addition to a course in the 6050-54 series.)
6055-59 Structure of an Uncommonly-Taught Language (Credit restriction: Except where an exemption is supplied by the head of the department, a student may not obtain credit for more than one course in the 6055-59 series.)
6110 Selected Topics in Transformational Grammar
6115 Topics in the Syntax of a Selected Language (Prerequisite: 6001 or 6110)
6150 Principles of Language Acquisition
6151 Selected Topics in Language Acquisition (Prerequisite: 6150)
6200 Generative Phonology
6201 Selected Topics in Phonology (Prerequisite: 6200)
6210 Sociolinguistics (Credit restriction: A student may not obtain credit for both 6210 or the former 6211.)
6212 Selected Topics in Language and Gender
6220 Areal and Temporal Variations in Language
6300-9 Special Subjects
6350 General Romance Linguistics
6390 Franco-Canadian
6400 Comparative and Historical Linguistics

6401 Morphosyntactic Change (Prerequisite: 6400)
6403 Etymology (cross listed as English 6403)
6410 Comparative Structure of a Selected Language Family (Prerequisite: 6403 or the former 6011, 6031)
6420 English Dialectology I
6421 English Dialectology II
6430 Selected Topics in Linguistic Variation (Prerequisite: 6220 or the former 6211)
6500 Field Methods
6601 Modern Linguistic Theories
6700 Experimental Phonetics
6701 Selected Topics in Experimental Phonetics (Prerequisites: 6200, 6700)
6800 Selected Topics in Morphology
6880 Selected Topics in Semantics
6999 MA Research Project
7000 Seminar in Research Methods
7001 Analytical issues in Linguistics
7100 Topics in North American Native Languages (Prerequisites: a course from series 6050-6054 or the former 6011, 6031, 6041)
7200 Advanced Topics in Syntax (Prerequisites: 6110, plus either 6001 or 6115)
7400 Seminar in Comparative and Historical Linguistics (Prerequisite: 6400 or 6410)
7430 Seminar in Linguistic Variation (Prerequisite: 6430)
7800 Seminar in Morpho-semantics (Prerequisite: 6800)
7900-03 Special Topics in Linguistics

Note: *Appropriate equivalent credits may be given for courses taken at the Summer Institute of the Linguistic Society of America, or a similar institute. Students are encouraged to attend these institutes: they should, however, consult the Head of the Department as to what courses may be appropriate for credit.*

5.16 Philosophy

Professor and Head of the Department
J. Bradley

The degree of Master of Arts is offered in Philosophy by full-time or part-time study. The program is designed so that it may be completed in one academic year (three semesters) of full-time study.

The candidate must complete 15 credit hours - 3 credit hours from 6000, 9 credit hours from 6011-6016, any 3 credit hours from 6101-6102 - and a thesis.

Normally, a full-time candidate will complete all the 15 credit hours and submit a thesis proposal by the end of the second semester of study. A minimum of one additional semester will be spent in completing the balance of the program.

Courses

6000 Graduate Seminar

Author Seminars:
6011 Ancient and Medieval Philosophy
6012 Modern Philosophy
6013 Contemporary Philosophy

Area Seminars:
6014 Metaphysics
6015 Theory of Knowledge
6016 Ethical and Political Theory

Tutorials
6101 Selected Texts
6102 Current Issues
6040-6099 Special Topics

5.17 Political Science

Professor and Head of the Department
P.G. Boswell

The degree of Master of Arts is offered in Political Science by full-time and part-time study.

Master of Arts

The degree of Master of Arts in Political Science may be taken by course work and thesis, course work and internship, or course work only. The thesis and internship options are available to full-time and part-time students. Both options are one-year programs for full-time students. The course work option is available only to part-time students.

1. **M.A. with thesis:**
   a. Students choosing the M.A. with thesis must normally complete a minimum of 18 credit hours in graduate program courses. Twelve credit hours are from required courses: 6000, 6010, 6020, and a subfield survey (one of 6100, 6200, 6300, 6400, 6500, 6600, or 6700). Further courses beyond the minimum number may be required, depending on the background and needs of the student.
   b. Each student choosing the thesis option will submit a thesis on a subject that has been approved by the supervisory committee of the Department.
   c. Students applying for the thesis option must submit a brief (one page maximum) statement of their research interest with their application.
2. **M.A. with internship:**
   a. Students choosing the M.A. with internship must normally complete a minimum of 24 credit hours in graduate program courses. Fifteen credit hours are from required courses: 6000, 6010, 6031, 6790, and a subfield survey (one of 6100, 6200, 6300, 6400, 6500, 6600, or 6700). Further courses beyond the minimum number may be required, depending on the background and needs of the student.
   b. Each student choosing this option will complete, normally in the Spring Semester, a one-semester, full-time internship, 6030,

with a political organization, government agency, or voluntary agency. Students registering for 6030 must also register for its co-requisite, 6031. The placement must normally be selected from a list of approved organizations that is maintained by the Department.

3. **M.A. with essay:**
   a. This option is restricted to part-time students. Students choosing the M.A. with course work will complete 24 credit hours in graduate program courses and an essay (6999). Fifteen credit hours are from required courses: 6000, 6010, 6020, a sub-field seminar (one of 6100, 6200, 6300, 6400, 6500, 6600, or 6700), and 6790. Further courses beyond the minimum number may be required, depending on the background and needs of the student.
   b. The essay will be in an area relating to the courses taken by the student and will normally apply Political Science concepts and methods to a practical issue in public affairs. Each student will be assigned a supervisor who will approve the topic and direct the research. The essay will be graded by the supervisor and one other member of the Department. The essay must be completed in the term in which the student is registered for Political Science 6999.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow.

6000 Political Science Concepts
6010 Political Science Methods
6020 Research Design
6030 Internship
6031 Applied Political Research (6 credit hours)
6100 Political Philosophy
6200 International Politics
6300 Comparative Politics
6301 European Politics and Public Policy
6350 Political Economy
6400 Political Development
6430 Latin American Politics
6500 Political Behaviour
6600 Newfoundland Politics
6700 Canadian Politics
6710 Intergovernmental Relations
6720 Local Politics
6740 Public Administration
6770 Canadian Provincial Politics
6780 Politics of the Atlantic Provinces
6790 Politics and Administration
6900-10 Special Topics
6999 Master's Essay

5.18 Religious Studies

Associate Professor and Head of the Department
M.P. DeRoche

The degree of Master of Arts is offered in Religious Studies.

1. Admission requirements are set forth in the General Regulations governing the Degree of Master of Arts. An applicant should have completed a minimum of 45 credit hours in Religious Studies courses at the undergraduate level with at least the grade of B in each. An applicant's overall undergraduate program must represent, to the satisfaction of the Department, a solid groundwork for graduate studies.
2. A candidate who does not hold an Honours degree or its equivalent shall be required to complete such additional undergraduate courses as the Department may deem necessary. These courses may be required as prerequisites to admission to the program, or as an additional constituent part of the program, at the discretion of the Department.
3. Upon acceptance into the program, each candidate will be assigned a supervisor, whose duty it shall be to assist the candidate.
4. Normally, the Master of Arts program should take two years to complete, the first of which is to be spent primarily on course work and preparation of a thesis proposal. A student accepted on a part-time basis would normally be expected to take three to five years to complete the program.
5. Students shall normally complete a thesis and a minimum of 12 credit hours in course work.
6. Students may write a thesis in one of the following areas: Hinduism, classical Confucianism, philosophical Daoism, Chinese and North American Buddhism, Buddhism and psychology, Judaism, Christianity, Hebrew Bible, New Testament, religious history of Canada, religious history of Newfoundland and Labrador, medieval religious thought, religion and culture (including pop culture), New Age religious movements, ethics and social justice, philosophy of religion.
7. Before a student begins writing his or her thesis, he/she should submit a thesis proposal to the Graduate Studies Committee of the Department for approval.
8. Students will be required to satisfy the Department as to proficiency in any language or technical facility deemed necessary by the Graduate Studies Committee of the Department for successful completion of the thesis.
9. For the course work students must complete three required courses and at least one other from the course list. The three required courses are: RS 6100 Interpretations of Religion; RS 6120 Studies in Religious Texts; and RS 6130 Studies in Religious Movements and Institutions.

Courses

6100 Interpretations of Religion (*Note: Credit may not be obtained for both Religious Studies 6100 and the former Religious Studies 6000*)
6120 Studies in Religious Texts
6130 Studies in Religious Movements and Institutions
6220 Selected Topics in New Testament
6230 Selected Topics in Hebrew Bible/Old Testament
6330 Selected Topics in Judaism

6340 Selected Topics in East Asian Religious Traditions
6720 Selected Topics in the History of Christianity
6730 Selected Topics in the Religious History of Canada
6740 Selected Topics in the Religious History of Newfoundland and Labrador
6750 Selected Topics in Medieval Religious Thought
6820 Selected Topics in Christian Ethics
6830 Selected Topics in Religion and Culture
6840 Selected Topics in the Philosophy of Religion
6850 Selected Topics in New Age Religious Movements
6900-10 Special Topics in the Study of Religion

5.19 Sociology

Professor and Head of the Department
S.H. Riggins

The degrees of Master of Arts, Master of Philosophy and Doctor of Philosophy are offered in Sociology by full-time or part-time study. The department has developed foci at the doctoral level in the areas of Maritime Sociology, Gender, and Work and Development but other fields of specialization are available at the Master's level including Social Theory, Sociology of Knowledge, Social Inequality and Criminology. Graduate courses are taught as tutorials or small seminars.

5.19.1 Master of Arts

1. Minimum admission requirements are a B average in undergraduate studies with a good undergraduate background in Sociology.
2. The M.A. degree with thesis requires the completion of 12 credit hours in graduate courses, normally including the Graduate Seminar (6880) and Methods of Sociological Research (6040), and a thesis. In the case of full-time students, the M.A. with thesis is normally completed in two years. The first year is devoted to the completion of the required courses and the definition of the thesis research topic. The second year is devoted to the completion of the thesis.
3. The M.A. degree by course work requires the completion of 24 credit hours, normally including the Graduate Seminar (6880), Methods of Sociological Research (6040), Social Theory (6150), Master's Research Paper (6900) and three electives. These courses should be taken during the first two semesters of full-time study. The research paper (Sociology 6900) will be supervised by a faculty member and must be presented at a departmental seminar. The supervisor and one other member of department will grade the paper. The research paper should be written in the third semester of full-time study.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

6040 Methods of Sociological Research
6090-94 Special Area in Sociology
6120 Social Organization
6130 Social Stratification
6140 The Community
6150 Social Theory
6160 Theory Construction and Explanation in Sociology
6240 Sociology in Medicine
6280 Social and Economic Development
6300 Maritime Sociology
6310 Political Sociology
6320 Gender and Society
6330 Science and Technology
6340 Comparative North Atlantic Societies
6350 Environmental Sociology
6360 Sociology of Work
6370 Feminist Theory and Methods
6380 Women, Nature, Science and Technology (Cross listed as Women's Studies 6380)
6610 Socialization
6620 Current Topics in Social Behaviour
6880 Sociology Graduate Seminar
6900 Master's Research Paper (6 credit hours)

6 Regulations Governing the Degree of Master of Business Administration

Associate Professor and Dean
G. Gorman

Assistant Professor and Acting Associate Dean (Academic Programs)
P. Coady

The degree of Master of Business Administration is offered by full-time or part-time study.

These regulations must be read in conjunction with the **General Regulations** of the School of Graduate Studies of Memorial University of Newfoundland.

6.1 Qualifications for Admission

1. Admission is limited and competitive. To be considered for admission to the Master of Business Administration program, an applicant shall normally hold at least a Bachelor's degree, with a minimum 'B' standing, from an institution recognized by Senate. Applicants must achieve a satisfactory total score on the Graduate Management Admission Test (GMAT), as well as an appropriate balance of verbal and quantitative GMAT score components. Specific information regarding test centres, dates, registration procedure and deadlines can be obtained by writing to: Educational Testing Service/GMAT, P.O. Box 6103, Princeton, New Jersey, U.S.A., 08541-6103. Their web address is: *www.gmat.org*. Relevant employment experience will be taken into account during the

evaluation of applications.

2. In exceptional cases, applicants who have not completed an undergraduate degree, but who meet all other requirements, may be considered for admission. Preference will be given to those who present a high GMAT score, have a minimum of 10 years of full-time managerial and executive experience, and have completed several years of university studies. The Faculty may also take into account relevant professional credentials. Applicants, who do not meet normal admission requirements, may be required to complete, with a high level of achievement, certain undergraduate courses before being considered for admission.
3. When circumstances warrant, and only on the strong recommendation of the Faculty of Business Administration, consideration may be given to candidates who do not meet some of the above requirements.
4. Applicants who did not complete a four-year baccalaureate degree at a recognized university where English is the primary language of instruction must normally achieve a paper-based score of 580 (or higher)/computer-based score of 237 (or higher) on the Test of English as a Foreign Language (TOEFL). Those submitting results of the Test of Written English (TWE) as well, with a score of 4 or better, will receive preference in the evaluation of English proficiency. Information regarding both tests is available from the Educational Testing Service.

6.2 Deadlines for Applications

Applications and all supporting documents must be received not later than March 15 from Canadian applicants wishing to enter full-time or part-time studies in the Fall semester. Part-time applicants planning to enter in the Winter (January) or Spring (May) semester must apply prior to October 15 and January 15 respectively. Individuals submitting applications later than the above dates are not assured of consideration for admission to the program in the semester desired; their applications will be processed only if time and resources permit. Full-time and international applicants are normally considered for entry in the Fall semester. International applicants must submit complete documentation by February 1.

6.3 Procedure for Admission

1. Applications for admission to the MBA program must be made on the appropriate form to the School of Graduate Studies.
2. The following documents must be submitted in support of the official application form:
   a. Letters of appraisal from three referees, at least one of whom has had close professional contact with the applicant within the last two years, and at least one of whom is capable of appraising the applicant's academic potential as a graduate student.
   b. Two copies of the Faculty's Employment Experience Information Form.
   c. Two official transcripts from each university or other post-secondary institution previously attended, to be sent directly by its Registrar (or equivalent officer) to the School of Graduate Studies. If not recorded on the transcript, official evidence of completion of undergraduate degree must also be submitted.
   d. The official GMAT score report, to be sent directly by the Educational Testing Service. The code number for Memorial University of Newfoundland is 0885.
   e. Where applicable, an official TOEFL score report, to be forwarded directly by the Educational Testing Service. As indicated above, overseas applicants have a stronger case if they also submit official results of the Test of Written English (TWE).

   Note: *Application files are evaluated only when all required items have been received.*
3. Admission shall be by the Dean of the School of Graduate Studies on the recommendation of the Faculty of Business Administration. Upon notification from the Dean of the School of Graduate Studies of acceptance into the MBA program, applicants must give written notice to the School of Graduate Studies of their intention to register. Such notice must be received by the Office of the Dean within 30 days of notification of acceptance, or three weeks prior to semester registration.

6.4 Direct Entry and Advanced Standing

1. Students who have an undergraduate honours (or equivalent, e.g., first class from another university recognized by Senate) degree in business may apply for direct entry into the second year of the MBA Program. Their course load will be 8107 - Managing in the Canadian Environment, 8208 - Strategic Management, 8209 - Management Skills plus seven electives from the list of second year courses listed in Table III and **Programs of Study**, 3. Direct entry will normally be considered if the honours degree was awarded within seven years of the year for which admission is being sought. The Committee on Graduate Studies reserves the right to require additional first year courses where there are noted deficiencies in a student's undergraduate record.
2. The Faculty's Committee on Graduate Studies may recommend advanced standing for students who do not qualify for direct entry at the time of admission to the MBA program. After admission and normally not later than one week after registration, all other students may apply for advanced standing for 8000 level courses in the MBA program. Advanced standing for any 8000 level MBA course would normally require that the student had achieved a "B+" or better in a letter grade system or the equivalent to a grade of 75% or better at Memorial University of Newfoundland in undergraduate courses required for advanced standing. Courses will normally be considered for advanced standing if they are part of a degree that has been awarded within seven years of the year for which admission is being sought. Advanced standing will not be granted for 8107 - Managing in the Canadian Environment, 8208 - Strategic Management, 8209 - Management Skills, and 8203 - Management Science.
3. The following information must be submitted to the Associate Dean, Faculty of Business Administration, for evaluation by the Committee:
   a. a detailed course outline for each course to be considered in the application for advanced standing;
   b. a description of the method of evaluation used in each such course, the grades received, and the completion dates.
4. Students who enter the MBA program with previous graduate degrees may be granted transfer credit for two non-business, non-specified elective courses by the Faculty's Committee on Graduate Studies. The remaining electives will be chosen from courses offered by the Faculty of Business Administration. This will reduce their program from 20 courses to 18 courses. (This does not apply to students with degrees such as the LLB and Medical Doctor degrees that are not master's degrees.) Courses will only be considered for advanced standing if they are part of a degree that has been awarded within seven years of the year for which admission is being sought.

6.5 Programs of Study

1. The programs of study include:
   a. a 60-credit hour program (equivalent to four semesters of full-time study) for candidates entering with an undergraduate degree in any area other than business. Thirty-three credit hours in program courses are compulsory and are specified in Table 1; the remaining 27 credit hours in program courses are electives.

b. a 48-credit hour course program plus a thesis for candidates entering with an undergraduate degree. Thirty-three credit hours in program courses are compulsory and are specified in Table I; the remaining 15 credit hours in program courses shall consist of 9103 (3 credit hours), 12 credit hours in courses agreed upon by each student and his or her supervisor plus a thesis, or

c. a 30-credit hour program (equivalent to two semesters of full-time study) for direct entry candidates. Three of the program courses (9 credit hours) are compulsory and are specified in Table II; the remaining 21 credit hours for candidates in the all-course program are electives. For direct entry candidates in the thesis option, courses shall normally consist of 8107, 8208, 8209 and 9103 (all 3-credit hour courses), 6 credit hours in courses agreed upon by each student and his or her supervisor plus a thesis. Additional courses may be recommended by the supervisor to the Committee on Graduate Studies where the preparation of the candidate in the cognate area is deemed to be inadequate.

2. Electives in the all course programs may be chosen from the following:

   a. approved business electives as listed in Table III;

   b. up to 6 credit hours in courses from other graduate programs within the School of Graduate Studies, as approved by the Dean of Graduate Studies on the recommendation of the Faculty of Business Administration;

   c. a Research Project or projects, which may be assigned up to 9 credit hours, as approved by the Dean of Graduate Studies on the recommendation of the Faculty of Business Administration;

   d. any other course or project deemed to be of satisfactory content and rigor as approved by the Dean of Graduate Studies on the recommendation of the Faculty of Business Administration.

3. Candidates in the all course programs are required to choose among the elective courses so that they do:

   a. at least one of B8204, B8210;

   b. at least one of B9306, B9325, B9326, B9020; or another approved international course;

   c. at least one of B9308, B9322, B9328.

4. The Faculty's Committee on Graduate Studies reserves the right to restrict candidates from taking particular MBA courses if it is deemed that those courses do not add sufficient value beyond courses that the candidate has completed at the undergraduate level. Regulations 3 a. and 3 b. above may be waived where the candidate is restricted from taking a particular course due to the completion of an undergraduate course. However, a candidate restricted from taking any one course listed under regulation 3 c. must complete a second course from that list.

5. Students are required to observe certain approved co- or prerequisites in scheduling their courses. These are as indicated:

Master of Business Administration Prerequisite/Co-requisite Table

Course	Prerequisites/Co-requisites*	Electives	
Required Courses		8203	Nil
8103	Nil	8204	8104
8104	Nil	8210	Nil
8106	Nil	9020	Nine courses completed
8107	Nil	9021	Nine courses including 8205
8108	8103*	9022	Nine courses including 8205
8109	Nil	9103	Nine courses completed including 8103
8205	Nil	9301	Nine courses completed
8206	8103*, 8108*,8109	9302	Nine courses completed plus 9301*
8207	8103, 8108*	9303	Nine courses completed plus 9301* and 9302*
8208	8103, 8104, 8106, 8108, 8109, 8205*, 8206*, 8207*	9306	Nine courses completed including 8103, 8104, 8106, 8108, 8109, 8205, 8206, 8207, 8208*
8209	8104	9308	Nine courses completed including 8103, 8106, 8108, 8109, 8206
		9309	Nine courses completed including 8106
		9311	Nine courses completed including 8104, 8204
		9312	Nine courses completed including 8103, 8108, 8109, 8206
		9314	Nine courses completed including 8103, 8108, 8109, 8206
		9316	Nine courses completed including 8205
		9317	Nine courses completed
		9318	Nine courses completed including 8106
		9320	Nine courses completed including 8103, 8108, 8109, 8206
		9322	Nine courses completed including 8103, 8104, 8106, 8108, 8109, 8205, 8206, 8207, 8208*
		9323	Nine courses completed including 8103, 8108, 8109, 8206, 9320
		9324	Nine courses completed including 8104, 8204
		9325	Nine courses completed including 8106
		9326	Nine courses completed including 8103, 8108, 8109, 8206
		9328	Nine courses completed including 8104
		9329	Nine courses completed

Note: *All 9000-level courses require the prior completion of nine courses, including any specific prerequisites or co-requisites.*

6. Students shall successfully complete the requirements of B8103-Statistical Applications in Management as part of the first 33 credit hours of their programs.
7. Changes to a student's prescribed program, including the specified course load, must have the prior approval of the Dean of Graduate Studies on the recommendation of the Faculty of Business Administration.

6.6 Evaluation

1. The Faculty Council of the Faculty of Business Administration constitutes the examining body for all examinations in Business courses. In addition, the standing of every student will be assessed by the Committee on Graduate Studies in accordance with the requirements outlined in Clauses 2 through 5 below.
2. Credit towards the MBA degree will be granted only for those courses which have been approved as constituting part of the student's program of study and in which the candidate has obtained a mark of 65% or higher.
3. A candidate is required to withdraw from the MBA program if:
   a. a final grade of 'D' or 'F' is obtained in two courses, or
   b. a final grade of 'C' or less is obtained in three courses, or
   c. a final grade of 'C' or less is obtained in a repeated course.
4. Clause 3. notwithstanding, to remain in the program, a candidate who obtains a final grade of 'C' or less in any course must normally repeat that course when next offered, and is permitted to repeat that course only once.
5. Clause 3. notwithstanding, in some instances, at the discretion of the course instructor, and with the approval of the associate dean, academic programs, Faculty of Business Administration, a student who has received a grade of 'C' or less in any course may be permitted to complete remedial work and may be re-examined. A student who passes after re-examination will have "passed on the basis of re-examination" recorded on their transcript, and the original grade will remain. A student who receives a grade of 'C' or less after re-examination will be required to withdraw from the program. The original grade will count as part of the total number of final grades of 'C' or less permitted before a student is required to withdraw as specified in 3. above.

   Note: *The pursuit of remedial work may not be offered more than twice to an individual student.*

Courses

The schedule of courses of the curriculum and elective courses are as follows:

Table I - Master of Business Administration Schedule of Courses

Term 1 8103 Statistical Applications in Management 8104 Organizations: Behavior and Structure 8106 Marketing 8107 Managing in the Canadian Environment 8108 Economics for Business 8109 Accounting for Management **Term 3** Five Electives (may include project**)**	**Term 2** 8205 Information Systems 8206 Managerial Finance 8207 Operations Management 8208 Strategic Management 8209 Management Skills **Term 4** Four electives (may include project)

Table II - Master of Business Administration Schedule of Courses (students with direct entry to Term 3)

Term 3 8107 Managing in the Canadian Environments Four Electives (may include project)	**Term 4** 8208 Strategic Management 8209 Management Skills Three electives (may include project)

Table III - Master of Business Administration Electives - Schedule of MBA Electives

8001-005 Special Topics 8203 Management Science 8204 Human Resource Management 8210 Labour Relations 9001-9019 Special Topics 9020 International Human Resource Management 9021-9050 Special Topics 9102 Management Decision Analysis 9103 Research in Management 9202 Management Problem Solving 9301-03 Research Project (Variable Credit) 9306 International Strategic Management 9307 Management of Not-for-Profit Organizations 9308 New Venture Creation 9309 Marketing Management 9310 Management Science Applications 9311 Seminar in Human Resource Management	9312 Financial Management 9313 Natural Resource Management 9314 Business and Taxation Law 9315 Advanced Accounting 9316 Information Systems Management 9317 Current Topics in Management 9318 Marketing Communications Management 9320 Investments and Portfolio Management 9322 Strategic Management of Technology and Innovation 9323 Financial Forward, Futures, and Options Markets 9324 Women and Men in Organizations 9325 Accessing International Markets 9326 International Finance 9327 Human Issues in International Business 9328 Change Management 9329 Labour Law

Two graduate electives from programs in other Faculties and Schools in the School of Graduate Studies.

Table IV - Master of Business Administration Course Restrictions

Credit may be obtained for only one course from each of the pairs of courses listed in Table IV.

Present Course	Replaces Course	Present Course	Replaces Course
8107	9201	9321	8210
8108	8101 or 8201	9324	9004
8109	8102 or 8202	9325	9005
8207	9319	9326	9010
8208	9101	9327	9007

7 Regulations Governing the Degree of Master of Business Administration (Executive Option)

The degree of Master of Business Administration (Executive Option), or EMBA, is cohort-driven. These regulations must be read in conjunction with the **General Regulations** of the School of Graduate Studies of Memorial University of Newfoundland.

7.1 Qualifications for Admission

1. Admission is limited and competitive. To be considered for admission to the EMBA program, an applicant shall normally hold at least a bachelor's degree, with a minimum 'B' standing, from an institution recognized by Memorial University of Newfoundland's Senate.
2. Applicants must achieve a satisfactory total score on the Graduate Management Admission Test (GMAT), as well as an appropriate balance of verbal and quantitative GMAT score components. Specific information regarding the test can be obtained by writing to: Educational Testing Service/GMAT, P.O. Box 6103, Princeton, New Jersey, U.S.A., 08541-6103 or by contacting the Web site at *www.gmat.org.*
3. Applicants with substantial management experience will receive preference during evaluation of applications. Normally, applicants will have a minimum of eight years of relevant management experience.
4. Applicants who did not complete a four-year bachelor's degree at a recognized university where English is the primary language of instruction must submit an acceptable score on the Test of English as a Foreign Language (TOEFL), or achieve a satisfactory score on the CanTEST. Information regarding the TOEFL is available from the Educational Testing Service (see address in 6.1.1). Information on CanTEST is available from CanTEST Project Office, Second Language Institute, University of Ottawa, Canada K1N 6N5.
5. All applicants will be interviewed prior to acceptance to the EMBA program by at least two members of the Faculty's Committee on Graduate Studies to assess the applicant's personal qualities, such as leadership potential and motivation, which are important to

successful managers.

6. While all of the criteria above are important, the Faculty's Committee on Graduate Studies will assess the applicant's entire profile. Significant strengths in one area may help compensate for weaknesses in another area.
7. In selecting candidates for any particular cohort, the Faculty's Committee on Graduate Studies will attempt to ensure that there is a breadth of managerial experience and practical backgrounds within the cohort as this is important to the students' learning environment. Student experience is expected to contribute to and enhance the learning experience for the entire cohort.

7.2 Deadlines for Application Submissions

1. Applications and all supporting documents must be received by June 15 from Canadian applicants. Application from foreign cohorts should be complete at least four months before the proposed commencement date. Individuals submitting applications later than the above dates are not assured of consideration for admission to the cohort desired; their applications will be processed only if time and resources permit.
2. The Faculty of Business Administration reserves the right not to offer an EMBA program during any period where there is deemed to be insufficient demand. Further, the faculty reserves the right to restrict the size of any cohort of students admitted to the EMBA program.

7.3 Procedure for Admission

1. Applications for admission to the EMBA program must be made on the appropriate form to the School of Graduate Studies.
2. The following documents must be submitted in support of the official application form:
   a. Letter of appraisal from two work-related referees.
   b. Two copies of the faculty's Employment Experience Information form.
   c. Two official transcripts from each university or other post-secondary institution previously attended, to be sent directly by its registrar (or equivalent officer) to the School of Graduate Studies. If not recorded on the transcript, official evidence of completion of undergraduate degree must also be submitted.
   d. The official GMAT score report, to be sent directly by the Educational Testing Service. The code number for Memorial University of Newfoundland is 0885.
   e. Where applicable, an official TOEFL or CanTEST score report, to be forwarded directly by the examining organization.

   Note: *Application files are evaluated only when all required items have been received.*
3. Admission shall be by the Dean of the School of Graduate Studies on the recommendation of the Faculty of Business Administration. Upon notification of acceptance into the EMBA program, applicants must give written notice to the School of Graduate Studies of their intention to register. Such notice must be received by the Office of the Dean within 30 days of notification of acceptance, or three weeks prior to semester registration.

7.4 Programs of Study

1. The EMBA program is cohort-driven and structured so that students within any cohort complete a program of 20 courses. Normally, the program will be delivered over four academic terms, and the contact time per course will be 26 hours, recognizing the experience of the candidates, and the extended time between classes which will allow the assignment of more course-related work to be completed outside of the classroom environment. In some instances, the program may be offered over a shorter duration. When this happens, the contact time per course will increase as the expectation for students to complete course-related work between classes will be lower. The twenty course program structure is outlined in **Table 1 - Master of Business Administration (Executive Option) Program of Study**.

Table I - Master of Business Administration (Executive Option) Program of Study

Term 1 8103 Statistical Applications in Management 8104 Organizations: Behavior and Structure 8106 Marketing 8107 Managing in the Canadian Environment 8109 Accounting for Management	**Term 2** 8108 Economics for Management 8204 Human Resource Management 8206 Managerial Finance 8210 Labor Relations
9103 - Research in Management	
Term 3 8205 Information Systems 8207 Operations Management 8209 Management Skills Two additional courses chosen by the Faculty of Business Administration	**Term 4** 8208 Strategic Management Three additional courses chosen by the Faculty of Business Administration
9301 - Research Project	

2. Five courses will be chosen by the Faculty of Business Administration to meet the needs of each cohort.
3. Students in the EMBA program may apply to complete up to two courses in the regular MBA program. Approval will be given if:
   a. the student can demonstrate a need for a course which is not offered to their cohort, but which is available in the regular MBA program;
   b. the student can demonstrate that there is a course being offered to their cohort that does not meet their specific needs;
   c. the student is able to attend classes at the time and place that the course is offered in the regular MBA program;
   d. sufficient resources are available to allow the student to take the course in the regular MBA program.
4. Any program changes, including those described in 1. through 3. above, must have the prior approval of the Dean of Graduate Studies on the recommendation of the Faculty of Business Administration.

7.5 Evaluation

1. The Faculty Council of the Faculty of Business Administration constitutes the examining body for all examinations in Business courses. In addition, the standing of every student will be assessed by the Committee on Graduate Studies in accordance with the requirements outlined in Clauses 2. through 5. below.
2. Credit towards the MBA degree will be granted only for those courses which have been approved as constituting part of the student's program of study and in which the candidate has obtained a mark of 65% or higher.
3. A candidate is required to withdraw from the MBA program if:
   a. a final grade of 'D' or 'F' is obtained in two courses, or
   b. a final grade of 'C' or less is obtained in three courses, or
   c. a final grade of 'C' or less is obtained in a repeated course.
4. Clause 3. notwithstanding, to remain in the program, a candidate who obtains a final grade of 'C' or less in any course must normally repeat that course when next offered, and is permitted to repeat that course only once.
5. Clause 3. notwithstanding, in some instances, at the discretion of the course instructor, and with the approval of the associate dean, academic programs, Faculty of Business Administration, a student who has received a grade of 'C' or less in any course may be permitted to complete remedial work and may be re-examined. A student who passes after re-examination will have "passed on the basis of re-examination" recorded on their transcript, and the original grade will remain. A student who receives a grade of 'C' or less after re-examination will be required to withdraw from the program. The original grade will count as part of the total number of final grades of 'C' or less permitted before a student is required to withdraw as specified in 3 above.

   Note: *The pursuit of remedial work may not be offered more than twice to an individual student.*

8 Regulations Governing the Degree of Master of Education

Professor and Dean
A. Collins

Associate Professor and Associate Dean
T. Seifert

Notes: *1. In the case of the following general program regulations and the specific program regulations, which govern all Master of Education degree programs, Dean refers to the Dean of Graduate Studies, Dean of Education refers to the Office of the Dean, Faculty of Education, and Faculty refers to the Faculty of Education, through its various operating committees.*
2. Students taking any of the Master of Education Degree programs are advised that a Bachelor of Education Degree is required for employment in the K - 12 system.

The Master of Education is offered in the following areas: Educational Leadership Studies, Curriculum, Teaching and Learning Studies, Counselling Psychology, Post-Secondary Studies, and Information Technology.

8.1 Qualifications for Admission

1. Admission to the Master of Education is limited and competitive. To be considered for admission to a graduate program in Education, an applicant shall:
   a. have from a recognized institution, either (I) an undergraduate degree with at least second class standing, or (ii) an undergraduate degree and an average of at least 70% in the last 90 attempted undergraduate credit hours.
   b. meet the requirements set forth in the specific program regulations.
2. Only in exceptional circumstances, and only on the recommendation of the Dean of Education, shall the Dean consider applicants who do not meet the requirements in 1.
3. Please refer to **Specific Programs** regulations for additional admission requirements.

8.2 Program of Study

1. Candidates for the Master of Education (Educational Leadership Studies, Curriculum, Teaching and Learning Studies) shall be required to complete a minimum of:
   a. 18 credit hours plus a thesis; or
   b. 24 credit hours plus an internship report, a project report or a paper folio; or
   c. 30 credit hours on the comprehensive-course route.

   Candidates for the Master of Education (Post-Secondary Studies) shall be required to complete a minimum of:
   a. 18 credit hours plus a thesis; or
   b. 24 credit hours plus an internship; or
   c. 30 credit hours on the comprehensive-course route

   Candidates for the Master of Education (Counselling Psychology) shall be required to complete a minimum of:
   a. 30 credit hours (which include an internship) plus a thesis; or
   b. 36 credit hours (which include an internship) on the comprehensive-course route.

   Unless otherwise indicated, all courses have a 3-credit hour value.

   Programs for some candidates may exceed the above minimum.
2. Candidates may apply for transfer of course credits. All course transfers require the approval of the Dean, on the recommendation of the Dean of Education, and are subject to General Regulation, **Program Requirements, Transfer of Course Credits** of the School of Graduate Studies.
3. a. A candidate with full-time status may register for a maximum of 12 credit hours in any regular semester and a maximum of 6 credit hours in intersession or summer session.
   b. A candidate with part-time status may register for a maximum of 3 credit hours in any semester or session, excluding summer session, when 6 credit hours are permitted.
   c. Candidates may register for additional courses in a semester or session with the permission of the Office of the Associate Dean of Graduate Programs in Education.

4. Before submission of the proposal for thesis, project, internship, or paper folio, a Supervisory Committee shall be recommended by the Dean of Education, in consultation with the candidate, and approved by the Dean. The Supervisory Committee shall consist of the Supervisor and at least one other member.

   The function of the Supervisory Committee shall be to approve the proposal for the thesis, project, internship, or paper folio, and to exercise supervision in the conduct of the study on behalf of the Faculty, subject to the final approval of the Dean.

8.3 Period of Study

The period of the study for a graduate program shall not normally exceed six years beyond first registration. Completion of some program components may require full-time study on the University campus.

8.4 Evaluation

1. In order to continue as a candidate for the Master of Education degree, a candidate who receives a final grade of "C" in any program course must repeat that course and obtain a minimum grade of "B". In the case of an elective course a suitable replacement course, acceptable to the Faculty, may be substituted for the failed course. Only one such repetition/replacement shall be permitted on the candidate's graduate program. Should a grade of less than "B" be obtained in the repeated course, replacement course, or any other program course, the candidate shall be required to withdraw from the program.
2. When the Faculty has determined, through consultation with the candidate, the instructors of graduate courses, and the program advisor or thesis supervisor that the candidate's work has fallen below satisfactory level, it may request that the Dean of Education recommend to the Dean that the candidate's program be terminated.

8.5 Thesis

See School of Graduate Studies General Regulation, **Theses and Reports**.

8.6 Program Regulations

Every candidate in graduate studies shall comply with the School of Graduate Studies **General Regulations**, the Degree Regulations **Program of Study**, and the specific program regulations as outlined in **Specific Programs**.

8.7 Appeals and Waivers Procedures

Candidates are advised that appeals and waivers of any regulations governing the degree of Master of Education are governed by School of Graduate Studies General Regulations **Provision For Waiver of Regulations** and **Appeal Procedures**.

8.8 Specific Programs

1. **Educational Leadership Studies**

   Educational Leadership Studies is designed to prepare candidates for leadership in Education.

   a. **Admission Requirements**

      In addition to meeting the requirements in the general degree regulations,

      i. students must have completed a range and number of courses in Education deemed appropriate by the Faculty and Dean of Education.

      ii. a minimum of two years of teaching/leadership experience is recommended.

   b. **Program Requirements**

      i. all students in the Master of Education Program (Educational Leadership Studies) must complete:

         - 6100 Research Designs and Methods in Education
         - 6204 Educational Administration: Theory and Practice
         - 6205 Educational Policy: Theory and Practice and one of the following:
         - 6 credit hours (thesis route) within closed electives as listed in v. below
         - 9 credit hours (internship, paper folio, project, comprehensive course route) within closed electives as listed in v. below

      ii. students on the thesis route must complete at least one of the research courses listed below (6100 is prerequisite):

         - 6466 Qualitative Research Methods
         - 6467 Quantitative Research Methods
         - 6468 Critical Approaches to Educational Research
         - 6469 Theoretical and Methodological Foundations of Action Research

      iii. students on the comprehensive-course route must complete 6290 Research and Development Seminar in Educational Leadership Studies. Normally students would be permitted to register for this course only after all other course requirements have been met, or during the student's last semester of studies.

      iv. to meet total credit hour requirements students may choose electives from any university graduate offering provided that those chosen are appropriate to the student's program:

         - students on the thesis route must complete a total of at least 18 credit hours
         - students on the internship, paper folio, or project route must complete a total of at least 24 credit hours and the appropriate course option 6291 Internship in Educational Leadership Studies (6 credit hours), 6292 Project in Educational Leadership Studies (6 credit hours), or 6293 Paper Folio in Educational Leadership Studies (6 credit hours)
         - students on the comprehensive-course route must complete a total of at least 30 credit hours

      v. Closed electives are those listed below:

         6202 Social Context of Educational Leadership
         6203 Leadership: Theory and Practice
         6321 Supervisory Processes in Education
         6330 Educational Finance
         6335 Legal Foundations of Educational Administration
         6410 Seminar on Philosophical Issues in Educational Policy and Leadership

6420 Ethical Issues and Perspectives in Educational Practice and Policy
6425 Comparative Perspectives in Public Education, Reform and Leadership
6426 Computer Applications in Educational Administration
6427 School Community Partnerships
6440 Family-School Relations: Leadership and Policy Implications
6465 School Violence: Leadership and Policy Implications
6664 Seminar in School Improvement
6710 Issues in Development and Implementation of Special Education Policy and Practices

Courses must be appropriate to the program and chosen in consultation with the advisor.

2. **Curriculum, Teaching and Learning Studies**

The Master of Education in Curriculum, Teaching and Learning Studies provides opportunities for students to investigate pertinent issues in these interrelated areas from a variety of perspectives: philosophical, historical, social, cultural, cognitive, and technological. The conceptual bases of curriculum, teaching, and learning are explored and analysed along with related examples of historical and current policies and practices. The program encourages the development of broad-based insights into issues related to these areas through an emphasis on critical inquiry and reflective practice. It supports students in the development and enhancement of research capabilities and professional expertise and practice.

Students may choose between two program options in Curriculum, Teaching and Learning Studies:

Option One

Students may choose to specialize in one of a number of areas of study: Computers in Education, Language and Literacy Studies, Mathematics Education, Music Education, Science Education, Second Language Education, Social Studies Education, Special Education, and Teacher-Librarianship.

Option Two

In consultation with a faculty advisor, students may choose to design a program speciality which addresses their research interests. Specialty foci within Curriculum, Teaching, and Learning Studies are numerous and may include technology and web-based education, arts education, rural and multi-age education, cultural studies and critical theory, and social justice education. Students may alternatively select appropriate courses from other Master of Education program offerings to develop a program to meet their learning goals. Students interested in this option are strongly encouraged to explore and to focus their research and study interests and to discuss these interests with a faculty advisor.

a. **Admission Requirements**

In addition to meeting the requirements in the general degree regulations,

i. students must have completed a range and number of courses in Education deemed appropriate by the Faculty and Dean of Education.

ii. a minimum of two years of teaching or related experience is recommended.

iii. for a specialization in special education, a completed Bachelor of Special Education degree or equivalent is required and enrolment will be limited to applicants articulating a research focus for which appropriate thesis supervision is available.

b. **Program Requirements**

i. all students in the Master of Education Program (Curriculum, Teaching and Learning Studies) shall be required to complete:
- 6100 Research Designs and Methods in Education
- 6300 Teaching and Learning
- 6602 Curriculum Studies

ii. students on the thesis route must complete at least one of the research courses listed below (6100 is prerequisite):
- 6466 Qualitative Research Methods
- 6467 Quantitative Research Methods
- 6468 Critical Approaches to Educational Research
- 6469 Theoretical and Methodological Foundations of Action Research
- and at least 2 courses from any university graduate offering provided that those chosen are appropriate to the student's program

iii. students choosing Option One on the internship, paper folio, project route, and comprehensive-course route must complete at least 2 courses within one particular specialty area from the list in viii. below.

iv. students choosing Option Two must choose courses that have been designated through consultation with faculty advisor during the first semester of studies in this program.

v. students choosing the Special Education specialization within Curriculum, Teaching and Learning Studies must complete a thesis and at least two of the required Special Education speciality courses.

vi. students on the comprehensive-course route must complete one of the following courses: E6390 Research and Development Seminar in Curriculum, Teaching and Learning Studies or E6394 Biographical Explorations of Teaching and Learning or 6913 Classroom Inquiry and Action Research. Normally students would be permitted to register for one of these courses only after all other course requirements have been met, or during the student's last semester of studies.

vii. to meet total credit hour requirements students may choose electives from any university graduate offering provided that those chosen are appropriate to the student's program:
- students on the thesis route must complete a total of at least 18 credit hours
- students on the internship, paper folio, or project route must complete a total of at least 24 credit hours and the appropriate course option 6391 Internship in Curriculum, Teaching and Learning Studies (6 credit hours), 6392 Project in Curriculum, Teaching and Learning Studies (6 credit hours), or 6393 Paper Folio in Curriculum, Teaching and Learning Studies (6 credit hours)
- students on the comprehensive-course route must complete a total of at least 30 credit hours

viii. core speciality courses in the study of curriculum, teaching and learning areas are those listed below:

Computers in Education
6610 Research on Computers in the Curriculum
6620 Issues and Trends in Educational Computing

Language and Literacy Studies
6106 Reading and Teaching Popular Culture
6108 Literacy and Language Education
6641 Writing in the Primary, Elementary and Secondary Schools
6642 Developmental Reading (K-8)
6643 Contemporary Issues in Secondary English
6645 Literature for Children and Adolescents
6647 Diagnosis and Remediation of Reading and Writing Difficulties
6649 Exploring Multiple Literacies
6693 Literacy for the Young Child in Home and School

Mathematics Education
6630 Critical Issues in Mathematics Education
6634 Teaching and Learning to Solve Mathematics Problems
6639 Technology and the Teaching and Learning of Mathematics

Music Education
6502 Contexts of Music Education
6503 Teaching Music from the Podium
6504 Musicianship, Pedagogy, and Learning

Science Education
6653 Contemporary Issues in Science Education I
6655 The Nature of Science and Science Education
6658 Teaching and Learning Scientific Concepts, Laws, and Theories

Second Language Education
6665 Second Language Curriculum
6667 Second Language Instruction
6668 Current Issues in Second Language Education

Social Studies Education
6670 Teaching and Learning Social Studies
6671 Research in Social Studies Education
6672 Issues and Trends in Social Studies

Special Education
6712 The Nature and Assessment of Behaviour Disorders in Children and Adolescents
6714 Principles and Practices in Exceptionality
6755 Nature and Assessment of Learning Disabilities

Teacher-Librarianship
6662 Seminar in Teacher-Librarianship
6664 Seminar on School Improvement

Additional courses in the speciality areas are available.

3. **Counselling Psychology**

The mission of the program in Counselling Psychology is to prepare highly knowledgeable, skilled, dedicated, and ethical professional practitioners, who will endeavour to enhance human potential throughout the life span and who can effectively practice within a variety of settings.

The Counselling Psychology faculty promotes counselling as an effective, viable means of assisting individuals throughout the life span. The counselling psychologist, regardless of his or her theoretical stance or work setting, functions as a change agent who is sensitive to and knowledgeable about the range of human development reflected in individual differences and cultural and linguistic diversity. Effective and positive change is brought about by assisting clients to: examine and modify their behaviour for more effective living; cope with, adjust to, or otherwise negotiate the environments affecting their psychosocial well-being; and effect change in the larger society.

The practice of Counselling Psychology is based on theory and research, an understanding of ethical practices, and a set of professional and interpersonal skills. It is essential that graduate students study a variety of conceptual frameworks and research findings as preparation for collaborative work with other helping professionals, paraprofessionals, and a variety of self-help groups.

The Counselling Psychology faculty, while representing a range of views, agree that the uniqueness of the individual and his or her personal strengths must be acknowledged and respected. To fully explore professional issues and personal values, a trusting and open atmosphere must be present.

Individuals from a wide variety of personal, social, and educational backgrounds are encouraged to apply to the Counselling Psychology program. The program provides a broad-based sequence of studies and supervised experiences that will prepare graduate students to be knowledgeable and skilled practitioners who can function in a variety of settings. By the time they have completed this program, students will have acquired knowledge and competencies in the following general areas: individual and group counselling theory and techniques, legal and ethical aspects of counselling, human development and learning, social, cultural, and linguistic diversity, career education and counselling, program development and implementation, measurement and appraisal, research and program evaluation, and application of current technology service delivery in rural areas.

a. **Admission Requirements**

In addition to meeting the requirements in the general degree regulations, students:

i. must have completed Education 3210, Introduction to Counselling.

ii. should have completed at least one undergraduate course on each of the following topics: statistics (Education 2900), assessment (Education 3280, 3290, 3950, 3955 or 4950), introduction to career education (Education 3211), introduction to exceptionality (Education 3220 or 3230). (Or their equivalent)

Note: *Many of these courses are prerequisites to specific graduate courses and must be completed before taking those courses.*

iii. should normally have at least one year of teaching (or related work) experience.

iv. must submit a resume that contains a concise rationale for the application (500 words or less) and three letters of recommendation (preferably one from each of the following: previous university instructors, supervisors, or employers).

v. should note admission is selective and controlled by an admission committee of faculty members involved in the program. An interview may be required if deemed necessary.

vi. should note the Graduate Record Examination may be required.

b. **Program Requirements**

i. all students in the Master of Education (Counselling Psychology) program shall be required to complete:

6100 Research Designs and Methods in Education (Prerequisite: Education 2900)
6702 Counselling: Theory and Practice (Prerequisite: Education 3210)
6706 Career Education and Career Counselling (Prerequisite: Education 3211)
6708 Group Counselling: Theory and Practice (Prerequisite: Education 6702)
6700 Ethical and Legal Issues in Counselling
6720 Internship in Counselling Psychology (Prerequisite: Normally completion of all courses) (9 credit hours)

ii. Students on the thesis route must complete the core courses listed above (24 credit hours) as well as a minimum of 6 credit hours from the closed electives indicated below for a total of 30 credit hours.

iii. Students on the comprehensive-course route must complete the core courses listed above (24 credit hours) as well as a minimum of 6 credit hours from the closed electives and 6 credit hours from any university graduate offering provided that those chosen are appropriate to the student's program for a total of 36 credit hours.

iv. All students in the Counselling Psychology program must complete 6720. The Internship may be fulfilled full-time or part-time and must comprise 600 clock hours with 240 hours of direct service with clients. It cannot be completed as part of your regular employment. It is strongly recommended that students take no other course during the full-time internship.

v. Closed electives are those listed below:

6703 Personal and Professional Development Group
6705 Nature and Development of School Counselling Services
6707 Assessment for Counsellors
6709 Assessment of Intelligence and Learning Skills (Prerequisite: 3600 or its graduate equivalent 6707. Normally, students in Counselling Psychology will not enroll in this course until the latter part of their program). Candidates intending to pursue a career in the K-12 school system in Newfoundland and Labrador are urged to take this course and the prerequisite.
6710 Issues in Development and Implementation of Special Education Policy and Practices
6712 The Nature and Assessment of Behaviour Disorders in Children and Adolescents
6713 Educational Applications of Contemporary Cognitive Psychology
6714 Principles and Practices in Exceptionality
6716 Working with Families and Parents
6717 Counselling Adolescents
6718 Elementary School Counselling
6719 Cultural Issues in Counselling
6802 Adult Learning and Development

Notes: *1. Student membership in the Canadian Counselling Association (CCA) or other appropriate professional organizations is strongly recommended for all students in the program.*
2. Students who plan to work in the school system should be aware of the Department of Education regulations to be eligible to work as a school counsellor.
3. Students who plan to become registered psychologists in Newfoundland and Labrador should review the requirements of the Newfoundland Board of Examiners in Psychology.

4. **Post-Secondary Studies**

The graduate programs in Post-Secondary Studies are designed to prepare candidates to function in a variety of roles in informal and formal post-secondary learning environments (including academic, technical, professional, adult education, health professional education, and student services/development). These programs facilitate a study of the post-secondary educational systems through an examination of their foundations, directions, organization and administration; and through curriculum and instructional development options for occupational preparation and adult education.

a. **Admission Requirements**

In addition to meeting the requirements in the general degree regulations,

i. candidates must have completed an undergraduate course in statistics (Education 2900), adult learning (Education 2801), and post-secondary education (Education 2720), or have accumulated the equivalent experiences in each of the above three areas as approved by the Head of the Academic Unit;

ii. two years of successful experience in working with adult learners is recommended;

iii. and for the Graduate Diploma in Post-Secondary Studies (Health Professional Education) program, candidates must have appropriate academic qualifications and work experience in a health-related field.

b. **Program Requirements (M. ED.)**

i. Candidates for the Master of Education (Post-Secondary Studies) are required to complete courses that form the program core.

- 6100 Research Designs and Methods in Education
- 6801 Foundations of Post-Secondary Programs
- 6802 Adult Learning and Development
- 6803 Research in Post-Secondary Education
- and not fewer than 6 credit hours from closed electives in vii. below.

ii. Students holding the Graduate Diploma in Post-Secondary Studies (Health Professional Education) and accepted in the Master of Education (Post-Secondary Studies) will complete up to 12 fewer credit hours dependent upon the chosen program route and the completion date of the Graduate Diploma.

iii. Students on the comprehensive-course route must complete 6890 Research and Development Seminar in Post-Secondary Studies.

iv. Students on the internship route must complete 6891 Internship in Post-Secondary Studies (6 credit hours).

v. Normally, students will be permitted to register for 6890 and 6891 only after all other course requirements have been met.

vi. To meet total credit hour requirements students may choose courses from other graduate offerings within the Faculty, the University, or other universities provided the courses chosen are appropriate to the student's program. Students on the thesis route must complete a total of at least 18 credit hours; and those on the internship or comprehensive-course route a total of at least 30 credit hours.

vii. Closed electives are those listed below:

6804 Leadership and Human Resource Development in Post-Secondary Education
6805 Advanced Human Resource Communications
6806 Interprofessional Education in the Health Professions
6822 Foundations of Instructional Design in Post-Secondary Education
6823 Principles of Program Design and Development
6832 Issues and Trends in the Administration of Post- Secondary Education
6841 Student Development Theory, Services and Programs in Post-Secondary Education
6940 Administration of Student Services in Post-Secondary Education

c. **Program Requirements for Graduate Diploma in Post-Secondary Studies (Health Professional Education)**

The Graduate Diploma in post-secondary studies, specialization in health professional education, which was created in collaboration with the Centre for Collaborative Health Professional Education, is designed to enhance health professionals' abilities as educators and leaders in educational program design, development, evaluation and administration. The Graduate Diploma is intended for educators and educational leaders of formal and informal post-secondary health professional education programs.

Participants will engage in an in-depth study of the structure and organization of the post-secondary education system, theories and philosophies of adult learning and development; and through elective courses pursue studies of program development models, instructional design frameworks, evaluation and assessment techniques, teaching methods, and research design principles in post-secondary teaching and learning. Opportunities will exist for the guided study of these topics as they relate to health professional education.

i. Candidates for the Graduate Diploma in Post-Secondary Studies (Health Professional Education) are required to complete courses that form the program core.

- 6801 Foundations of Post-Secondary Programs
- 6802 Adult Learning and Development
- 6806 Interprofessional Education in the Health Professions
- and not fewer than 3 credit hours from closed electives in b. vii. above or from:

6100 Research Designs and Methods in Education
6803 Research in Post-Secondary Education

ii. Students are encouraged to relate their assignments in these courses to health professional education.

iii. Students enrolled in the Graduate Diploma program may request transfer to the Master of Education (Post-Secondary Studies). Courses for both the Graduate Diploma and the degree must be appropriate to the program and chosen in consultation with the student's advisor.

5. **Information Technology**

The graduate program in Information Technology is offered in partnership with the Cape Breton University (CBU). It is designed to facilitate the educational use of information technology in a wide variety of settings. The program will be of interest to educators at all levels including K-12 teachers, school administrators, those in the post-secondary system, business and industry, as well as those in most other adult learning situations.

Information technology in this Master of Education program encompasses computer, communications, networking and multi-media applications. The overall intent of the program is to:

- provide educators with skill sets and pedagogical expertise that will enable them to address computer and related information technology in a teaching/learning situation;
- develop potential information technology leaders for the educational system;
- develop instructional designers, for a variety of educational settings, who are able to combine information technology with learning theory to enhance curriculum development and delivery;
- provide a basis for the continued professional development of educators in the area of information technology;
- develop an awareness of the applications of information technology in a wide variety of educational contexts; and
- develop research expertise and potential in the use and application of information technology for teaching and learning purposes.

Candidates for the program will have attained, prior to acceptance, some fundamental knowledge and skills with respect to information technology through pre-requisite experiences, and have attained a recognized undergraduate degree in an appropriate discipline with at least a second class standing (see specific regulations for details). The program components are designed to enable candidates to build on their prior experience through the development of pedagogical links and information technology applications. It is intended that the program be offered primarily as a part-time program through distance delivered courses, with other delivery formats to be considered/utilised where feasible. Access to specific computer hardware, software, and the internet is required and will be the responsibility of each candidate.

A steering committee comprised of three members from each of the Faculty of Education at Memorial University of Newfoundland and the Institute for Education at CBU is responsible to the Associate Dean of Graduate Programs and Research, Faculty of Education, for selected aspects of the program. The latter include assessing student applications, recommending approval of instructors who are not regular faculty members at either CBU or Memorial University of Newfoundland, and recommending course or program changes. This committee is to be co-chaired by the Associate Dean of Graduate Programs and Research, Faculty of Education, Memorial University of Newfoundland and the Director of the Institute for Education at CBU, or their designate(s).

CBU courses offered as part of this program are indicated by the prefix "CBU EDU" followed by the specific course number.

a. **Admission Requirements**

In addition to meeting the requirements in the general degree regulations, Faculty of Education, Memorial University of Newfoundland, candidates must have successfully completed:

i. one of a diploma or certificate in information technology from an accredited institution; CBU EDU 530; Memorial University of Newfoundland E2751 and E3751; or equivalent as determined by the program steering committee.

b. **Program Requirements**

i. all candidates for the Master of Education (Information Technology) must complete E6100 Research Designs and Methods in Education.

ii. candidates on the thesis route must complete:

three credit hours from:
6610 Research on Computers in the Curriculum
6615 Educational Software Prototyping and Evaluation
6620 Issues and Trends in Educational Computing

nine credit hours selected from the core elective CBU courses approved for this program:
CBU EDU 531 Assessment of Software and Information Technology Applications for Education
CBU EDU 533 Integration of Instructional Design and Information Technology
CBU EDU 535 Applications of Learning Theory in Educational Multi-media Design
CBU EDU 537 Designing Web-based Learning
CBU EDU 539 Technology Planning for Educational Environments
CBU EDU 541 Information Management for Educational Environments

three credit hours from: 6822, 6823, 6802, E6426, or from other Memorial University of Newfoundland, Faculty of Education graduate course offerings as deemed appropriate for each candidate's program and approved by the program steering committee.

iii. candidates on the comprehensive-course route must complete:
- six credit hours selected from E6610, E6615, E6620 listed in ii. above
- twelve credit hours selected from CBU EDU 531, EDU 533, EDU 535, EDU 537, EDU 539, EDU 541 listed in ii. above
- E6590 Research and Development Seminar in Information Technology in Education
- three credit hours from E6822, E6823, E6802, E6426, or from other Memorial University of Newfoundland, Faculty of Education graduate course offerings as deemed appropriate for each candidate's program and approved by the program steering committee
- additional credit hours appropriate to a candidate's program, and approved by the program steering committee, to be chosen from graduate course offerings at Memorial University of Newfoundland, CBU, or any other university to complete the required 30 credit hours for the comprehensive-course route

iv. normally, candidates will be permitted to register for E6590 only after all other course requirements have been met

v. candidates who have successfully completed the CBU graduate level Certificate in Education (Technology) will be given advanced standing credit for the 9 CBU EDU course credit requirements for the thesis route or 12 CBU EDU course credit requirements for the comprehensive course-route on this program

vi. candidates who have successfully completed the former CBU EDU 534 and/or EDU 543 with at least a CBU grade of B (70%) toward the CBU graduate level Certificate in Education (Technology) prior to September 2000, will receive up to 12 advanced standing credit hours appropriate to their degree option (EDU 534 will be considered equivalent to EDU 531 and EDU 533, and EDU 543 equivalent to EDU 535 and EDU 537)

vii. thesis-route candidates will be subject to **Theses and Reports** of the School of Graduate Studies, Memorial University of Newfoundland, supervised by a faculty member at Memorial University of Newfoundland, and where feasible co-supervised by a CBU faculty member.

Courses

A selection of the following graduate courses shall be offered to meet the requirements of candidates, as far as the resources of the Faculty allow:

6100 Research Designs and Methods in Education
6104 Foundations of Program Evaluation
6105 Social and Cultural Difference and Education
6106 Reading and Teaching Popular Culture
6107 Arts Education: Creativity in the Classroom
6108 Literacy and Language Education
6201 Philosophical Orientations to Educational Leadership (1 credit hour)
6202 Social Context of Educational Leadership
6203 Leadership: Theory and Practice
6204 Educational Administration: Theory and Practice
6205 Educational Policy: Theory and Practice
6290 Research and Development Seminar in Educational Leadership Studies
6291 Internship in Educational Leadership Studies (6 credit hours)
6292 Project in Educational Leadership Studies (6 credit hours)
6293 Paper Folio in Educational Leadership Studies (6 credit hours)
6300 Teaching and Learning
6311 Administrative Theory and Practice II
6320 Human Resource Development I: Personnel Administration
6321 Supervisory Processes in Education
6322 Human Resource Development III: Performance Appraisal of Educational Personnel
6330 Educational Finance
6335 Legal Foundations of Educational Administration
6340 School Business Administration
6390 Research and Development Seminar in Curriculum, Teaching and Learning Studies
6391 Internship in Curriculum, Teaching and Learning Studies (6 credit hours)
6392 Project in Curriculum, Teaching and Learning Studies (6 credit hours)
6393 Paper Folio in Curriculum, Teaching and Learning Studies (6 credit hours)
6394 Biographical Explorations of Teaching and Learning
6410 Seminar on Philosophical Issues in Educational Policy and Leadership
6415 The Process of Educational Policy: An Historical Approach to Policy Studies
6420 Ethical Issues and Perspectives in Educational Practice and Policy
6425 Comparative Perspectives in Public Education, Reform, and Leadership
6426 Computer Applications in Educational Administration
6427 School Community Partnerships
6428 Administration of Student Services
6430 The Sociology of School and Classroom Life: Policy Implications
6435 Culture, Socialization and Schooling: Policy Issues and Implications
6440 Family-School Relations: Leadership and Policy Implications

6445 The Basics of Policy Analysis in Education
6450 Educational Policy Analysis in Practice
6455 Policy Analysis: A Comparative Perspective
6460 Policy Analysis: Reporting and Implementing
6461 Advanced Policy Analysis
6465 School Violence: Leadership and Policy Implications
6466 Qualitative Research Methods
6467 Quantitative Research Methods
6468 Critical Approaches to Educational Research
6469 Theoretical and Methodological Foundations of Action Research
6501 Field Experience in Educational Administration
6502 Contexts of Music Education
6503 Teaching Music from the Podium
6504 Musicianship, Pedagogy, and Learning
6590 Research and Development Seminar in Information Technology in Education
6600 Learning and Motivation
6602 Curriculum Studies
6610 Research on Computers in the Curriculum (Prerequisite: 6620)
6615 Educational Software Prototyping and Evaluation
6620 Issues and Trends in Educational Computing
6630 Critical Issues in Mathematics Education
6631 Current Research in Teaching and Learning of Secondary Mathematics (Prerequisite: 6630)
6632 Current Research in Teaching and Learning of Elementary School Mathematics (Prerequisite: 6630)
6633 Current Research in Technology in Mathematics Education (Prerequisite: 6630)
6634 Teaching and Learning to Solve Mathematics Problems
6635 Teaching and Learning Geometry
6636 Teaching and Learning the Concept of Number and Operations
6637 Teaching and Learning Algebra
6638 Using Diagnostic Teaching in Mathematics Education
6639 Technology and the Teaching and Learning of Mathematics
6640 Text Interpretation
6641 Writing in the Primary, Elementary and Secondary Schools
6642 Developmental Reading (K-8)
6643 Contemporary Issues in Secondary English
6644 Drama in the Secondary School
6645 Literature for Children and Adolescents
6646 Literature in the Secondary School
6647 Diagnosis and Remediation of Reading and Writing Difficulties
6648 Drama in the Primary and Elementary Schools
6649 Exploring Multiple Literacies
6650 Current Issues in Science Education
6653 Contemporary Issues in Science Education I
6655 The Nature of Science and Science Education
6656 Research in Science Education
6658 Teaching and Learning Scientific Concepts, Laws and Theories
6660 Information Technology
6661 Applications of Media in Education
6662 Research Seminar in Teacher-Librarianship
6663 The Organization of Learning Resources
6664 Seminar in School Improvement
6665 Second Language Curriculum
6666 Research in Second Language Education
6667 Second Language Instruction
6668 Current Issues in Second Language Education
6670 Teaching and Learning Social Studies
6671 Research in Social Studies Education
6672 Issues and Trends in Social Studies
6675 Current Issues in Rural Education
6680 Cognition in Education: Foundations
6681 Cognition in Education: Specialist Research Methods
6685 Cognition in Education: Argumentative Reasoning (Prerequisite: 6680)
6686 Cognition in Education: Assessment (Prerequisites: 6680, 6681)
6687 Cognition in Education: Specific Cognitive Disabilities (Prerequisite: 6680)
6688 Cognition in Education: Interring From Text (Prerequisite: 6680)
6689 Cognition in Education: Instruction (Prerequisite: 6680)
6690 Cognition in Education: Motivation (Prerequisite: 6680)
6691 Cognition in Education: Metacognition (Prerequisite: 6680)
6692 Cognition in Education: Social Cognition (Prerequisite: 6680)
6693 Literacy for the Young Child in Home and School
6700 Ethical and Legal Issues in Counselling
6701 Issues and Methodologies in Learning and Developmental Research
6702 Counselling: Theory and Practice
6703 Personal and Professional Development Group (Non-Credit)
6704 Counselling II: Theory and Practicum
6705 Nature and Development of School Counselling Services
6706 Career Education and Career Counselling
6707 Assessment for Counsellors
6708 Group Counselling: Theory and Practice
6709 Assessment of Intelligence and Learning Skills
6710 Issues in Development and Implementation of Special Education Policy and Practices
6711 Behavior Modification in the Educational Setting
6712 The Nature and Assessment of Behaviour Disorders in Children and Adolescents

6713 Educational Applications of Contemporary Cognitive Psychology
6714 Principles and Practices in Exceptionality
6715 The Theory and Practice of Peer Helping Programs
6716 Working with Families and Parents
6717 Counselling Adolescents
6718 Elementary School Counselling
6719 Cultural Issues in Counselling
6720 Internship in Counselling Psychology (9 credit hours)
6750 Professional Practices and Consultation in School Psychology (1 credit hour)
6751 Principles and Procedures of Psychoeducational Assessment (1 credit hour)
6753 Practicum in School Psychology
6754 The Physiology and Psychology of Reading
6755 Nature and Assessment of Learning Disabilities
6756 Identification and Remediation of Problems in Learning Mathematics in Grades K-8
6757 Advanced Studies of Developmental Disabilities
6758 Theory of Educational Measurement
6801 Foundations of Post-Secondary Programs
6802 Adult Learning and Development
6803 Research in Post-Secondary Education
6804 Leadership and Human Resource Development in Post-Secondary Education
6805 Advanced Human Resource Communications
6806 Interprofessional Education in the Health Professions
6822 Foundations of Instructional Design in Post-Secondary Education
6823 Principles of Program Design and Development
6831 Organization and Administration of Student Services for the Adult Learner
6832 Issues and Trends in the Administration of Post-Secondary Education
6840 Counselling Communities
6841 Student Development Theory, Services and Programs in Post-Secondary Education
6890 Research and Development Seminar in Post-Secondary Studies
6891 Internship in Post-Secondary Studies (6 credit hours)
6900-6910. Special Topics
6911 Multiage Education: An Introduction
6912-6950 Special Topics
6913 Classroom Inquiry and Action Research (Prerequisite: 6469 Theoretical and Methodological Foundations of Action Research)
6940 Administration of Student Services in Post-Secondary Education

9 Regulations Governing the Degree of Master of Employment Relations

Professor and Director

S. Cadigan

The Master of Employment Relations (MER) is a multi-disciplinary program providing advanced level study of all aspects of the employment relationship.

The MER program is offered by full-time or part-time study and involves 33 credit hours of course work, including a major supervised paper. Candidates registered on a full-time basis will normally complete the program in one academic year.

The following regulations must be read in conjunction with the **General Regulations** of the School of Graduate Studies of Memorial University of Newfoundland.

9.1 Administration

1. The program shall be administered by a Director, who shall be appointed by the Dean of Graduate Studies on the recommendation of the Deans of Arts and Business Administration. In making this recommendation, the Deans of Arts and Business Administration shall consult with the employment relations community both within and outside the University.
2. The Director shall be responsible to a Graduate Committee in Employment Relations (GCER) for the purposes of administering the program. The GCER shall consist of five members appointed by the Dean of Graduate Studies on the recommendation of the Director. The GCER will include the Director, who shall chair the committee, and two faculty members from each of the Faculties of Arts and Business Administration.
3. An Advisory Board in Employment Relations (ABER) shall be established for the purposes of consulting with and obtaining feedback from the employment relations community. The ABER will consist of a broad cross-section of members from the employment relations community both within and outside the University who shall be appointed by the Dean of Graduate Studies on the recommendation of the Director.

9.2 Qualifications for Admission

1. Admission is limited and competitive.
2. To be considered for admission to the MER program, an applicant shall have:
   a. An undergraduate degree, with a minimum B standing, from an institution recognized by Senate; and
   b. An undergraduate course in organizational behaviour and microeconomics, from an institution recognized by Senate, with a minimum B standing in each course.
3. In exceptional cases, applicants who have not completed an undergraduate degree, but who meet all other requirements, may be considered for admission. Preference will be given to those who have a minimum of 10 years of full-time professional experience, including demonstrated success in employment relations, and who have successfully completed substantial university coursework including several courses at an advanced undergraduate level from an institution recognized by Senate. Applicants without an undergraduate degree must have completed one or more undergraduate courses in organizational behavioural and microeconomics, from an institution recognized by Senate, with a minimum B standing in each course. Any applicants who do not meet normal admission requirements, may also be required to successfully complete the GMAT or the GRE with an acceptable score and/or additional undergraduate courses before being considered for admission.

4. applicants are strongly encouraged to complete an introductory course in statistics prior to admission.

9.3 Deadlines for Applications

1. Applicants seeking full-time enrolment will normally only be admitted to the program in the Fall (September) semester.
2. Applications must be postmarked no later than February 15 for applicants wishing to enter full-time or part-time studies in the Fall (September) semester.
3. Applications must be postmarked not later than August 15 for applicants wishing to enter part-time studies in the Winter (January) semester.
4. Individuals submitting applications later than the above dates are not assured of consideration for admission to the program in the semester desired; their applications will be processed only if time and resources permit.

9.4 Procedure for Admission

1. Applications for admission to the MER program must be made on the appropriate form and submitted to the School of Graduate Studies.
2. The following documents must be submitted in support of the official application form:
   a. Letter of appraisal from three referees, at least one of whom is capable of appraising the applicant's academic potential as a graduate student, and at least one of whom is capable of appraising the applicant's professional experience and/or actual or likely success in a career in employment relations.
   b. Two copies of the MER Employment Experience Information Form.
   c. Two official transcripts from each university or other post-secondary institution previously attended, to be sent directly by its Registrar (or equivalent officer) to the School of Graduate Studies. If not recorded on the transcript, official evidence of completion of undergraduate degree must also be submitted.
3. Application files are normally evaluated after the deadline dates for application noted above and only when all required documentation has been received.
4. Admission shall be by the Dean of Graduate Studies on the recommendation of the GCER. Upon notification from the Dean of the School of Graduate Studies of acceptance into the MER program, applicants must give written notice to the School of Graduate Studies of their intention to register.

9.5 Program of Study

1. The MER program consists of 33 credit hours of course work as specified in Table I. These include 27 credit hours of compulsory courses and 6 credit hours of elective courses. The compulsory courses are comprised of 18 credit hours of core courses specified in Table II and 9 credit hours for a research seminar.
2. The compulsory core courses introduce students to the three main areas of study in the program: labour-management relations; human resources management; and labour market and social policy analysis.
3. Electives allow students to specialize in one or more of the three main areas of study. Electives must be chosen from the list of approved electives specified in Table III. Other courses may be approved and added to Table III from time to time by the GCER.
4. Candidates are responsible for fulfilling all pre-requisites and may require special permission from the Department offering an elective to enrol in the course.
5. The Research Seminar in Employment Relations provides students with both quantitative and qualitative research skills and requires the identification of a research problem, the development and execution of a methodology appropriate to addressing the problem, analysis of results, and completion of final report. The Research Seminar involves 3 credit hours of course work in each of the Fall, Winter and Spring semesters.
6. Candidates enrolled in Research Seminar in Employment Relations will normally have completed an introductory course in statistics. If candidates' records suggest a deficiency in statistics, the GCER reserves the right to require that they complete a foundation course in statistics as part of, and to be completed during, their program.
7. The prerequisites for EMRE 6030 are EMRE 6010 and EMRE 6020. In addition, students will normally complete six MER courses before registering for EMRE 6030. There are no prerequisites for EMRE 6010 and EMRE 6020 but students are advised to take these courses late in their programs, just before taking EMRE 6030. For the core courses, the prerequisite for BUSI 9329 is BUSI 8210. For the remaining core courses, there are no prerequisites. For the elective courses, departmental regulations that specify particular courses as prerequisites will apply but the departmental requirement to have completed a number of courses will not apply.
8. A waiver of a core course may be granted by the Dean of Graduate Studies on the recommendation of the GCER if the candidate can demonstrate that the material in the course has been substantially covered by other courses taken at this or another recognized university. In such cases, the course must be replaced by another course offered by Memorial University of Newfoundland in consultation with the candidate, and approved by the GCER. The maximum number of core courses that can be waived is 3 and all replacement courses must be taken during the candidate's period of enrollment in the program.
9. Each student's program of study must be approved by the GCER. The GCER reserves the right to restrict candidates from taking particular courses if it is deemed that those courses do not add sufficient value beyond courses that the candidate has completed at the undergraduate level.

9.6 Evaluation

1. Candidates for the MER Degree must obtain a grade of B or better in all program courses.
2. Candidates who receive a grade of less than B in a program course will be permitted to remain in the program, provided the course is repeated and passed with a grade of B or better. Alternatively, the candidate may, on the recommendation of the GCER, and with the approval of the Dean of Graduate Studies, substitute another graduate course. Only one course repetition or substitution will be permitted during the candidate's program after which the candidate shall be required to withdraw from the program.

9.7 Courses

The schedule of courses for the MER program is as follows:

Table I - Master of Employment Relations Schedule of Courses

Term I (Fall) Three core courses from Table II One elective from Table III Employment Relations 6010 Research Seminar in Employment Relations I **Term III (Spring)** Employment Relations 6030 Research Seminar in Employment Relations III	**Term II (Winter)** Three core courses from Table II One elective from Table III Employment Relations 6020 Research Seminar in Employment Relations II

Table II - Master of Employment Relations Core Courses

Business 8204 Human Resource Management Business 8210 Labour Relations Business 9329 Labour Law	Economics 6030 Labour Market Economics History 6075 Advanced Studies in Labour and Working-Class History Sociology 6360 Sociology of Work

Table III - Master of Employment Relations Elective Courses

Labour-Management Relations Business 9013 Collective Agreement Administration and Arbitration **Human Resource Management** Business 8104 Organizations: Behaviour and Structure Business 8208 Strategic Management Business 8209 Management Skills Business 9020 International Human Resource Management Business 9311 Seminar in Human Resource Management [Prerequisite: 8204] Business 9317 Current Topics in Management Business 9328 Change Management Education 6203 Leadership: Theory and Practice Education 6600 Learning and Motivation Education 6706 Career Education and Career Counselling Education 6802 Adult Learning and Development Psychology 6401 Attitudes and Social Cognition Psychology 6402 Group Processes	**Labour Market and Social Policy Analysis** Business 8108 Economics for Business Business 9306 International Strategic Management Economics 6000 Advanced Micro-economic Theory Economics 6001 Advanced Macro-economic Theory History 6000 Advanced Studies in Newfoundland History History 6070 Advanced Studies in Social History History 6090 Advanced Studies in Women's History History 6120 Advanced Studies in Economic and Business History Political Science 6700 Canadian Politics Political Science 6770 Canadian Provincial Politics Sociology 6320 Gender and Society Sociology 6370 Feminist Theory and Methods Social Work 6230 Seminar in Community Development Women's Studies 6000 Feminist Theory

Note: *Students may require special permission from the graduate program prior to enrolling in a course.*

10 Regulations Governing the Degree of Master of Engineering

Professor and Dean

R. Gosine

Professor and Associate Dean (Graduate Studies and Research)

R. Venkatesan

The degree of Master of Engineering may be obtained either through full-time or part-time studies. The M.Eng. degree can be obtained through programs in the following disciplines: Civil Engineering; Electrical and Computer Engineering; Mechanical Engineering; Ocean and Naval Architectural Engineering; and Oil and Gas Engineering. At present, the following interdisciplinary research areas are active in the Faculty: Engineering Analysis; Environmental and Hydrotechnical Studies; Manufacturing and Robotics; Mechanics, Structures and Materials; and Ocean Engineering. The interdisciplinary area of Ocean Engineering has been and continues to be a major strength for graduate studies and research in the Faculty of Engineering and Applied Science.

10.1 Qualifications for Admission

To be considered for admission, an applicant shall meet the requirements set out in General Regulation, **Qualification for Admission**, or shall have qualifications and/or engineering experience that is acceptable to the Dean of Graduate Studies and to the Faculty of Engineering and Applied Science.

Admission to the M.Eng. program is limited and competitive. All applicants must meet the minimum qualifications set out in the above paragraph. Decisions on admission, however, will also take into account such things as the applicant's rank in class, referees' assessments, general performance throughout the applicant's undergraduate academic program and the availability of supervisors in the area of the applicant's interest.

Normally applicants will be considered in January for admission to the following September. In special cases applicants may also be considered in April and August. Applications should be made sufficiently far in advance to permit the University to obtain all relevant documents and review the application.

10.2 Program of Study and Research

1. Students enrolled in the Master of Engineering program will work in one of the following disciplines: Civil Engineering; Electrical and Computer Engineering; Mechanical Engineering; Ocean and Naval Architectural Engineering; and Oil and Gas Engineering.
2. A program shall normally consist of:
   a. a thesis related to the area of study
   b. a minimum of 15 credit hours, at least 12 credit hours of which must be from graduate courses. Three credit hours may be taken from undergraduate courses approved for the student's program by the Dean of Graduate Studies on the recommendation of the Faculty of Engineering and Applied Science
   c. Seminar course 9100

d. such other courses as may be required in an individual's program.

For students enrolled in the Electrical and Computer Engineering, Mechanical Engineering, Ocean and Naval Architectural Engineering disciplines, or Oil and Gas Engineering, a program shall normally include at least 9 credit hours from courses chosen from the core courses listed in 3. below.

3. The following are core courses:

   ENG. 9002, 9015, 9110, 9113, 9114, 9115, 9210, 9411, 9420, 9501, 9505, 9516, 9520, 9550, 9609, 9627, 9816, 9821, 9826, 9827, 9834, 9847, 9861, 9865, 9867, 9871, 9874, 9876, 9901, 9902, 9940.

4. The thesis is to contain the results of a systematic investigation which has been conducted by the candidate under the direction of the supervisor.
5. With the approval of the Dean of Graduate Studies and on the recommendation of the Faculty of Engineering and Applied Science, credit towards the course requirements may be considered for graduate courses previously taken by the student in accordance with the **General Regulations** for course credit transfers.

10.3 Supervision

1. Each student shall be assigned to a supervisor approved by the Dean of Graduate Studies on the recommendation of the Faculty of Engineering and Applied Science.
2. The supervisor shall propose a tentative program of study and topic of investigation which must be approved by the Dean of Graduate Studies acting on the recommendation of the Faculty of Engineering and Applied Science, before the acceptance of a student in the program.
3. At the end of each semester, the supervisor shall report on the student's progress to the Dean of Engineering and Applied Science for onward transmission to the Dean of Graduate Studies.
4. A temporary or permanent change of supervisor for a student already in a program shall be permitted only with the approval of the Dean of Graduate Studies and the Dean of Engineering and Applied Science.
5. The supervisor shall advise the student in the preparation and presentation of a seminar on the student's topic of investigation as described in **Thesis**, 2. below.

10.4 Industrial Internship Option

The Faculty encourages graduate students to undertake internships of work in industry. Internships in industry will permit students either (a) to focus on the practicalities of research projects which have been well defined before the student enters an internship, or (b) to develop and define a research project from problems experienced during the internship. Encouragement to undertake an internship will be given only where it is clear that one of these expectations can be met.

Students registered in the M.Eng. program may, with the permission of their supervisor, the Dean of the Faculty of Engineering and Applied Science, and the Dean of Graduate Studies select the Industrial Internship Option. Students registered in the option must satisfy the degree regulations for an M.Eng. program. In addition, students in the Industrial Internship Option:

- must take at least 9 credit hours of the courses required for their program on campus: the remaining required courses may be taken on or away from campus: those taken at other universities require pre-approval by the Dean of the School of Graduate Studies on the recommendation of the Faculty of Engineering and Applied Science
- shall normally spend 8 to 12 months of their program at an internship in industry
- shall normally spend at least two semesters on campus on a full-time basis as a graduate student at this university
- shall submit a concise progress report to their supervisors, no later than the end of each semester while on an internship

10.5 Fast-Track Option

Students registered in academic term 7 of a Memorial University of Newfoundland undergraduate engineering program are eligible to apply for admission to an M.Eng. fast-track option. The purpose of the option is to encourage students interested in pursuing graduate studies to begin their research-related activities while still registered as an undergraduate student. Normally, to be considered for admission to the option, students must have achieved at least a 70% average over academic terms 1 to 6 of their undergraduate engineering program. While enrolled in the option, a student may complete some of the M.Eng. degree requirements and, hence, potentially be able to graduate earlier from the M.Eng. program.

Students shall enroll in the M.Eng. fast-track option concurrently with their undergraduate program during the fall semester prior to academic term 8. Prior to entering the fast-track option, students must apply for and receive an exemption from work term 6. While enrolled in the option a student must be registered in full-time graduate studies during the fall semester prior to academic term 8; during academic term 8, the student must take a leave of absence from the graduate program. A student enrolled in the fast-track option shall undertake research related to their field of study and shall normally complete at least 3 credit hours from the courses listed for their M.Eng. program in the fall semester prior to academic term 8.

In the Fall semester following academic term 7, fast-track option students will pay only the graduate fees appropriate to graduate students following plan A of **Fees and Charges** (i.e., the 6 semester plan). In the succeeding winter semester, while completing academic term 8 of their undergraduate program, fast-track option students will pay only the appropriate undergraduate fees.

Upon completion of their undergraduate program, students may register in the M.Eng. program on a full-time basis. All courses taken as part of their graduate program while enrolled in the M.Eng. fast-track option are credited towards the M.Eng. degree course credit hour requirements. Courses taken as credit towards a student's undergraduate degree may not be credited towards a student's graduate degree; courses credited towards a student's graduate degree may not be credited towards a student's undergraduate degree. Students who do not complete their undergraduate degree within one year of entering the fast-track option will normally be required to withdraw from their M.Eng. program.

10.6 Course Evaluation

1. In order to continue in the program, a student shall obtain an A or B grade in each course taken for credit.
2. The student's achievement in the program must be to the satisfaction of the Dean of Graduate Studies and the Faculty of Engineering and Applied Science. When it has been determined on the basis of consultations with the student, the course instructors and the supervisor, that a student's work has fallen below satisfactory level, he/she may be required to withdraw from the program.

10.7 Thesis

1. A student who expects to graduate must inform the Dean of Graduate Studies of this intention at least three months before the

University Convocation at which the award of the degree is expected.

2. Before the thesis is submitted, the student shall present an open seminar on the topic of investigation to the Faculty of Engineering and Applied Science. Any serious deficiencies noticed at this stage should be carefully considered, in consultation with the supervisor, for rectification.
3. Three copies of the thesis shall be submitted to the School of Graduate Studies through the Faculty of Engineering and Applied Science, in a form and format as specified in the Thesis Guide issued by the School of Graduate Studies and the Presentation of Theses Guide issued by the Faculty of Engineering and Applied Science. A submission which does not meet the specifications will be returned to the candidate.
4. Examiners shall be appointed by the Dean of Graduate Studies on the recommendation of the Faculty of Engineering and Applied Science soon after the student has expressed an intention to submit the thesis.

10.8 Evaluation of Theses

Theses evaluation shall be carried out in accordance with **Theses and Reports** of the **General Regulations** governing all students in the School of Graduate Studies.

10.9 Recommendation for Awarding Degree

When a student has completed all the requirements for the M.Eng. degree, the Faculty of Engineering and Applied Science shall forward a recommendation to the Dean of Graduate Studies for the award of the degree.

10.10 Program in Environmental Engineering and Applied Science

The Faculty of Engineering and Applied Science offers a program in Environmental Engineering and Applied Science. The program is available on a full-time or part-time basis and is open to students with a Science or Engineering background. For details of program requirements for the M.A.Sc. degree in Environmental Engineering and Applied Science refer to the regulations governing the degree of Master of Applied Science in Engineering and Applied Science.

10.11 Program in Computer Engineering

The Faculty of Engineering and Applied Science offers a program in Computer Engineering. For details of program requirements for the M.A.Sc. degree in Computer Engineering, refer to the regulations governing the degree of Master of Applied Science.

10.12 Program in Environmental Systems Engineering and Management

The Faculty of Engineering and Applied Science offers a program in Environmental Systems Engineering and Management. For the details of the program requirements for the M.A.Sc. degree in Environmental Systems Engineering and Management refer to the regulations governing the degree of Master of Applied Science in Environmental Systems Engineering and Management.

10.13 Courses

A selection of the following graduate courses will be offered to meet the requirements of the candidates, as far as the resources of the Faculty will allow.

Required Courses:

9100 Engineering Graduate Seminar (1 cr. hr.)

Core Courses*:

9002 Ocean Engineering Structures
9015 Ocean Engineering Hydrodynamics
9110 Advanced Petroleum Production Engineering
9113 Phase Behaviour of Petroleum Reservoir Fluids
9114 Advanced Reservoir Engineering
9115 Safety and Risk Engineering
9411 Probabilistic Methods in Engineering
9420 Engineering Analysis
9501 Finite Element Analysis with Engineering Applications
9505 Structural Dynamics and Vibrations
9516 Similitude, Modeling and Experimental Data Analysis
9520 Solid and Structural Mechanics
9550 Fatigue, Fracture and Corrosion
9609 Environmental Risk Assessment
9627 Environmental Systems Engineering
9816 Antenna Theory
9821 Digital Signal Processing
9826 Advanced Control Systems
9827 Continuous and Discrete-Event Systems
9834 Advanced Power Electronics
9847 Computer & Control Methods in Power Systems
9861 High-Performance Computer Architecture
9865 Advanced Digital Systems
9867 Advanced Computing Concepts for Engineering
9871 Information Theory and Coding
9874 Software Design and Specification
9876 Advanced Data Networks
9901 Fundamentals of Fluid Dynamics
9902 Advanced Transport Phenomena
9940 Advanced Robotics

Other Courses:

9022 Marine Geotechnical Engineering
9052 Ice Properties and Mechanics
9090/99 Special Topics in Ocean Engineering

9111 Well Testing
9112 Multiphase Flow
9116 Reliability Engineering
9150-59 Special Topics in Oil and Gas Engineering
9210 Advanced Engineering Materials
9390/94 Special Topics in Engineering Management
9440 Optimization Principles in Engineering
9495/99 Special Topics in Engineering Analysis
9540/49 Special Topics in Mechanics, Structures & Materials
9560 Applied Remote Sensing
9601 Environmental Pollution and Mitigation (cross listed as ENVS 6004)
9603 Environmental Sampling and Pollutant Analysis (cross listed as ENVS 6005)
9605 Advanced Waste Water Treatment
9610/15 Special Topics in Environmental Engineering and Applied Science
9621 Soil Remediation Engineering
9622 Environmental Statistics
9625 Offshore Environmental Operations
9626 Environmental Management System
9628 Environmental Laboratory
9629 Environmental Policy and Regulations
9630 Pollution Prevention
9713 Stochastic Hydrology
9723 Soil Properties and Behaviour (formerly 9720)
9750 Advanced Topics in Analysis and Design of Reinforced Concrete (formerly 9701)
9755 Advanced Topics in Precast & Prestressed Concrete (formerly 9702)
9760/64 Special Topics in Geotechnical Engineering
9790/99 Special Topics in Civil Engineering
9802/05 Special Topics in Computer Engineering
9806/09 Special Topics in Communications Engineering
9815 Electromagnetic Propagation
9822 Nonlinear Digital Image Processing and Analysis
9825 Random Signals (formerly 9830)
9835 Advanced Electric Machines
9848 Power System Stability (formerly 9812)
9849 Power System Protection
9850/53 Special Topics in Power Systems and Controls
9866 Fault-Tolerant Computing (formerly 9846)
9868 ASIC Design
9869 Advanced Concurrent Programming
9872 Digital Communications
9873 Image Communications
9875 Embedded and Real-Time Systems Design
9877 Computer and Communications Security
9878 Wireless and Mobile Communications
9879 Formal Specification and Development
9880/83 Special Topics in Computer Engineering
9884/87 Special Topics in Signal Processing
9888/91 Special Topics in Communications Engineering
9892/95 Special Topics in Power Systems and Controls
9896/99 Special Topics in Applied Electromagnetics
9910 Advanced Manufacturing
9920 Advanced Concepts in Mechanical Design
9925 Theory & Design of Mechanical Components & Structures
9985/89 Special Topics in Manufacturing & Robotics
9990/99 Special Topics in Mechanical Engineering

* Courses likely to be offered annually on a regular basis. Other courses will be offered if required in a student's program and dependent upon Faculty resources.

11 Regulations Governing the Degree of Environmental Engineering and Applied Science

See Regulations Governing the Degree of Master of Applied Science in Environmental Engineering and Applied Science.

12 Regulations Governing the Degree of Master of Environmental Science

(see also Master of Science in Environmental Science and Master of Applied Science in Environmental Engineering and Applied Science)

Professor and Chair, Board of Studies

Dr. Chris Parrish

12.1 Program of Study

1. The Environmental Science Program is an interdisciplinary graduate program involving the science-based departments of Memorial University of Newfoundland and along with the Environmental Engineering Program makes up Memorial University of Newfoundland's Environmental Studies Graduate Program. There are two Environmental Science Graduate degree streams, the Master of Science (M.Sc., Environmental Science) and the Master of Environmental Science (M.Env.Sci.)

   The program is available on a full-time or part-time basis. Admission is open to students with Science or Engineering backgrounds.

2. The program is offered by the Faculty of Science and is administered by a Board of Studies appointed by the Dean of Science.

12.2 Qualifications for Admission

Admission is limited and competitive. To be considered for admission applicants shall normally hold an Honours degree in Science with at least second class standing, or equivalent, or a Bachelor's degree in Engineering from an institution recognized by the Senate or shall have qualifications and/or environmental experience acceptable to the Dean of Graduate Studies and the Board of Studies. The Board of Studies will make recommendations on admission to the Dean of Graduate Studies.

12.3 Degree Requirements

1. To the extent that resources permit, individual programs will be developed to suit students' interests and needs. However all programs must be approved by the Board of Studies and by the Dean of Graduate Studies. All **General Regulations** of the School of Graduate Studies shall apply to these degrees.
2. **Master of Environmental Science**
   a. The Master of Environmental Science is a multidisciplinary course-based degree, focused on environmental issues. The degree program provides for both multidisciplinary courses and for courses focused on the student's specific area of interest.
   b. The degree program requires completion of 27 credit hours.
      i. Students will be required to take a minimum of 15 credit hours in program courses, 9 credit hours of which must be ENVE/ENVS 6000, ENVS 6009 and ENVS 6010 and 6 credit hours from ENVE/ENVS 6001, 6002 and 6003.
      ii. Students will be required to take a minimum of 12 credit hours in elective courses approved by the Board of Studies, 9 credit hours of which will normally be selected from graduate courses offered by the Faculties of Science and Engineering and Applied Science. Students are advised to consult with instructors and Faculties regarding necessary prerequisites and availability.
3. **Master of Science (Environmental Science)**
   a. The Master of Science (Environmental Science) is a research degree which includes a thesis and course work. The thesis research will focus on environmental topics relevant to the student's background, and will be supervised by appropriate faculty, normally in the Faculties of Science and/or Engineering and Applied Science. The course component has two aims: to broaden the students' understanding of environmental issues; and to provide further training in areas of research specialization for the thesis.
   b. Each student will have a Supervisory Committee normally consisting of a Supervisor and two others. The Supervisory Committee will be appointed by the Dean of Graduate Studies on the recommendation of the Board of Studies for Environmental Science.
   c. The program of each student will consist of a minimum of 15 credit hours in program courses which will include ENVE/ENVS 6000 and ENVS 6010. Of the 9 credit hours remaining in program courses, 3 credit hours will be from ENVE/ENVS 6001, 6002 and 6003 and the other credit hours will be related to the student's specialty and will normally be chosen from graduate courses offered by the Faculties of Science, and Engineering and Applied Science.
   d. All students will be required to submit a thesis embodying the results of systematic research on an approved topic. The thesis will be evaluated according to procedures outlined in General Regulation **Theses and Reports**.

Courses

ENVE/ENVS 6000 Environmental Science and Technology
ENVE/ENVS 6001 Earth & Ocean Systems
ENVE/ENVS 6002 Environmental Chemistry and Toxicology
ENVE/ENVS 6003 Applied Ecology
ENVS 6004 Environmental Pollution and Mitigation (Cross listed as Eng 9601)
ENVS 6005 Environmental Sampling and Pollutant Analysis (Cross listed as Eng 9603)
ENVS 6007 Environmental Risk Assessment (same as Eng 9609)
ENVS 6008 Air Pollution (same as Eng 9624)
ENVS 6009 Environmental Science Project
ENVS 6010 Environmental Seminar
ENVS 6201-6210 Special Topics in Environmental Science

13 Regulations Governing the Degree of Master of Marine Studies (Fisheries Resource Management)

Program Committee

Dr. Peter Fisher (Fisheries and Marine Institute) - Chair
Dr. Michael Wernerheim (Department of Economics, Faculty of Arts)
Mr. Cyr Couturier (Fisheries and Marine Institute)
Ms. Donna Stapleton (Faculty of Business Administration)
Dr. Joe Wroblewski (Ocean Sciences Centre)

13.1 Programs

There are two graduate programs in Fisheries Resource Management: the Graduate Diploma and the Master of Marine Studies. The Master's degree requires successful completion of 8 courses plus a major report. The Graduate Diploma requires completion of 6 courses.

The programs are aimed at professionals working in or intending to enter careers in fisheries management. The programs are administered by a Program Committee consisting of five members appointed by the Dean of Graduate Studies.

13.2 Graduate Diploma

The Graduate Diploma in Fisheries Resource Management provides an opportunity for fisheries professionals to enhance their perspective on fishery issues from a variety of disciplines.

1. **Admission Requirements**

   To be admitted to the Graduate Diploma in Fisheries Resource Management, a student must be eligible to register in the Master of

Marine Studies program (see **Master of Marine Studies, Admission Requirements** below).

2. **Program of Study**

   The program consists of 18 credit hours. Students must complete 6001 plus five other courses chosen from 6002, 6003, 6004, 6005, 6006 and 6007.

3. **Evaluation**

   Candidates for the Graduate Diploma in Fisheries Resource Management must obtain a grade of B or better in all program courses.

13.3 Master of Marine Studies

The degree of Master of Marine Studies (Fisheries Resource Management) is a multi-disciplinary program of study that will provide the candidate with exposure to all dimensions of modern fisheries resource management. The program is aimed at professionals working in or intending to enter careers in fisheries management and is available on a full-time or part-time basis. All candidates must take the full complement of 24 credit hours, including a required seminar, plus a major report. Candidates registered on a full-time basis may complete the program in one academic year. Students who have successfully completed the requirements for the Graduate Diploma may elect to continue their program of study in order to earn the Degree.

1. **Admission Requirements**
   a. Admission to the program is on a competitive basis. To be considered for admission to the program an applicant must normally have an undergraduate degree with a minimum of a high second class standing from an institution recognized by the Senate.
   b. In addition to the academic requirements in a. applicants will normally have a demonstrated commitment to fisheries through employment or experience in a sector of the fishery, in a regulatory agency or government department connected to fisheries, in a non-governmental agency, or through self-employment or consulting activities related to fisheries.
   c. Applicants must submit, along with the normal academic application form, a letter outlining their reasons for applying for admission to the program, their expectations of the program and its anticipated impact on their work and career progression.
   d. In exceptional cases persons who do not meet the requirements specified in a. but who have a significant connection to fisheries and demonstrated equivalent experience acceptable to the Program Committee may be admitted. Such persons will undergo an interview by the Program Committee before being admitted.
   e. Applications for admission in September must be received no later than April 30 of the year in which admission is sought.
2. **Program of Study**
   a. The program consists of 24 credit hours made up of the courses numbered 6001-6008 listed below, plus a major report. Courses will normally be offered only once in an academic year with four courses offered in the Fall semester and four, including the Seminar course offered in the Winter. Full-time candidates are expected to undertake and complete the work required for the report during the Spring semester.
   b. A waiver of a program course may be granted by the Dean of Graduate Studies on the recommendation of the Program Committee if the candidate can demonstrate to the Program Committee that the course material has been substantially covered by a course taken at this or another recognized university. In such cases the course must be replaced by another course approved by the Program Committee. This replacement course must be taken during the candidate's period of enrolment in the program.
3. **Evaluation**
   a. Candidates for the Master's Degree must obtain a grade of B or better in all program courses and successfully complete the seminar.
   b. Candidates who have received a grade less than a B in a program course will be permitted to remain in the program, provided the course is retaken and passed with a grade of B or better. Alternatively the candidate may, on the recommendation of the Program Committee, substitute another graduate course. Only one such repeat or substitution will be permitted in the program.
   c. The major report is a fundamental component of the program and will normally be undertaken in the final semester of the program. The topic of the report and a faculty supervisor will be chosen by the candidate in consultation with the Program Committee. The report provides an opportunity to synthesise an original perspective on a selected fisheries issue through the examination of appropriate literature and other sources of information. Normally the report will be multi-disciplinary in nature and will result in a document equivalent to a publishable periodical journal article or a consultant's report on a particular issue. It will be assessed in accordance with General Regulation **Theses and Reports** of the School of Graduate Studies.

Courses

6001 Fisheries Ecology
6002 Quantitative Methods in Fisheries
6003 Fisheries Economics
6004 Fisheries Policy
6005 Fisheries Planning and Development
6006 Business Management for Fisheries
6007 Evolution of Fisheries
6008 Seminar in Fisheries Management

14 Regulations Governing the Degree of Master of Music

Professor and Director

T. Gordon

Professor and Associate Director

M. Volk

The degree of Master of Music (M.Mus.) is offered by full-time study, normally commencing in the Fall semester. Three areas of specialization are offered: Conducting, Performance and Performance/pedagogy. The specialization of Ethnomusicology is available through the degrees Master of Arts and Doctor of Philosophy. See the section Regulations Governing the Degree of Master of Arts and Specific Program Regulations and the section Regulations Governing the Degree of Doctor of Philosophy and Specific Program Regulations, respectively.

Within the three broad areas of specialization offered for the M.Mus., there is considerable flexibility available to further focus the program to meet specific interests and needs. These programs offer the musician the tools to make accelerated advances in comprehension, skills and abilities as a performing musician or conductor while offering at the same time, insights and experience into

the *métier* of the musician/entrepreneur in the modern world. The School of Music has forged active partnerships with many of the professional music organizations and institutions within the arts community in the greater St. John's region which afford an exceptional range of professional experiences to its graduate students. Included among these partners are the Newfoundland Symphony Orchestra, the Canadian Broadcasting Company, Heritage Canada, the Newfoundland and Labrador Arts Council and many others.

Graduate instruction is offered in instrumental and choral conducting, as well as in the following performance media: voice, piano, organ, flute, clarinet, saxophone, oboe, bassoon, trumpet, euphonium, trombone, tuba, percussion, guitar, violin, viola, cello and double bass.

14.1 Qualifications for Admission

1. Admission regulations and procedures are outlined in the **General Regulations** Governing the School of Graduate Studies and apply to the Master of Music degree. Candidates for admission will normally hold a Bachelor of Music degree with first-class standing from a recognized university. Applicants with other types of preparation should enquire with the School of Music regarding the likelihood of admission. Entrance auditions are normally held in late February or early March.
2. In addition to meeting the requirements above, admission is further determined by audition and diagnostic examinations.
   a. Auditions for September entry will be held in February of each year on the St. John's campus. Where exceptional circumstances prevail and with the approval of the Director, the audition may be submitted as an audio or video recording. The audition program should display a range of performance styles and repertoire. Prospective Candidates should contact the School of Music for details on length of audition and appropriate repertoire. Applicants to the M.Mus. in Conducting program should submit professional quality video recordings of their work with a minimum of two different types of ensembles. These video recordings should include both rehearsals and performances.
   b. Candidates for admission will be required to write diagnostic examinations measuring their skills and knowledge in the standard areas of musical literacy. These include music theory and analysis, aural skills, and music history and literature which includes repertoire knowledge in the performance area. Candidates who display deficiencies in any of these areas may still be considered for admission. Once admitted, however, they will be required to take remedial course work in addition to the required program requirements.

14.2 Program of Study

1. All candidates for the degree of Master of Music will be required to register for courses which combine course work, performance or work-study internships and which can normally be completed over two years by full-time study. Recital requirements as specified within each specific program option are considered as thesis equivalents. Comprehensive examinations are not administered. The normal residency period in Conducting may, in some instances, be reduced through summer and intersession study or through a reduction of the credit requirements based on prior professional experience. Candidates for the degree are required to complete the core courses in the first year of the program. Principal and secondary applied course credits make up the largest concentration of program requirements and are intended to be taken over two years. Courses in secondary concentrations and electives make up the balance of the program.
2. All candidates for the M.Mus. degree must complete 36 credit hours which include MU 6001 and MU 6002.
   a. All candidates in Conducting (Choral Conducting, Instrumental Conducting or Choral/Instrumental Conducting) must also complete the following courses: 6210, 6310, 6100; one of 6006, 6007 or 6008; and a total of six credits chosen from 6211, 7210, 6212, 6213, 6311, 7310, 6312 or 6313. Of the remaining 12 credit hours in electives, and with the approval of the Associate Director for Graduate Studies in the School of Music, 3 credit hours may be from related disciplines.
   b. All candidates in Performance (solo voice, instrument or chamber music) must also complete 645A/B, 745A/B; 6700, 6750; 6005 or 6009; and 4 credits chosen from 646A/B or 6500 or 6501. Of the remaining 6 credit hours in electives, and with the approval of the Associate Director for Graduate Studies in the School of Music, 3 credit hours may be from related disciplines.
   c. All candidates in Performance/Pedagogy (solo voice or instrument) must also complete 647A/B, 747A/B, 6400, 6600, 6650 and 4 credits chosen from 646A/B or 6500 or 6501. Of the remaining 6 credit hours in electives, and with the approval of the Associate Director for Graduate Studies in the School of Music, 3 credit hours may be from related disciplines.
   d. Further courses may be required depending on the background of the individual student.
3. Candidates with concentrations in Choral Conducting, Performance (voice) and Performance/Pedagogy (voice) will be required to demonstrate competence in two of French, German or Italian. Exit examinations in the chosen languages will measure understandings both of diction and translation. (See **General Regulation Evaluation, Evaluation of Graduate Students**, 4.)

Master of Music	**Conducting**	**Performance**	**Performance/Pedagogy**
Common Core	6001-6002	6001-6002	6001-6002
Applied	6210 6310 6 credit hours chosen from 6211, 6311, 7210, 7310, 6212, 6213, 6312, 6313	645A/B 745A/B 4 credit hours chosen from 646A/B, 6500, 6501	647A/B 747A/B 4 credit hours chosen from 646A/B, 6500, 6501
Complementary	6100 6006 or 6007 or 6008	6700 6750 6005 or 6009	6400 6600 6650
Electives	Twelve credit hours, of which 3 may be from related disciplines	Six credit hours	Six credit hours

14.3 Evaluation

The **General Regulations** on evaluation, continuance and termination of studies of the School of Graduate Studies pertain to the Master of Music degree. In addition, failure to receive a grade of 75% or higher on any juried performance will lead to termination of the student's program.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the School will allow.

Core courses
6001 Research Methods
6002 Graduate Seminar

Applied courses
6210 Instrumental Conducting I
6211 Instrumental Conducting II
6212 Instrumental Conducting Internship I (1 to 3 credit hours)
6213 Instrumental Conducting Internship II (1 to 3 credit hours)
6310 Choral Conducting I
6311 Choral Conducting II
6312 Choral Conducting Internship I (1 to 3 credit hours)
6313 Choral Conducting Internship II (1 to 3 credit hours)
6400 Music Pedagogy
645A/B Principal Applied Study I (6 credit hours)
646A/B Secondary Principal Applied Study (4 credit hours)
647A/B Principal Applied Study I (6 credit hours)
6500 Chamber Music (2 credit hours per semester. Maximum: 8 credit hours)
6501 Chamber Music (3 credit hours per semester. Maximum: 12 credit hours)
6651 Pedagogy Internship II (2 credit hours)
7210 Instrumental Conducting III
7310 Choral Conducting III
745A/B Principal Applied Study II (6 credit hours)
747A/B Principal Applied Study II (6 credit hours)

Complementary courses and electives
6005 Performance Practice
6006 Instrumental Ensemble Repertoire
6007 Choral Repertoire
6008 Orchestral Repertoire
6009 Music Literature
6100 Score Study and Analysis
6600 Pedagogy Seminar
6650 Pedagogy Internship I (2 credit hours)
6700 Music Industries Seminar
6750 Music Industries Internship (2 credit hours)

Special Topics Courses
6800-6809
7800-7809

15 Regulations Governing the Degree of Master of Nursing

Associate Professor and Director

S. LeFort

Acting Associate Director (Graduate Program and Research)

D. Moralejo

15.1 Program

1. The responsibility for the administration of all graduate programs shall reside with the Dean of Graduate Studies.
2. Applicants for the program shall be required to apply for admission to the Dean of the School of Graduate Studies and shall be expected to follow the regulations, policies and practices required of the School. Deadline for receipt of applications should be no later than February 15. If space is available, students who apply after the deadline date may be accepted.
3. The School of Nursing offers a Master of Nursing Program with three options: (thesis, non-thesis, and nurse practitioner) as well as a Post Masters Nurse Practitioner Graduate Diploma.

15.2 Qualifications for Admission

1. Applicants to the Master of Nursing Program in any of the three options listed above must have a baccalaureate degree in nursing, or an equivalent from an institution recognized by the University and a knowledge of nursing satisfactory to the School of Nursing.
2. Admission to the program is limited and competitive. To be considered for admission, the applicant must have maintained at least a grade B standing in the baccalaureate program.
3. Applicants are also required to have a minimum of one year's experience in nursing practice, and to have completed an undergraduate nursing research course, and a statistics course normally within the last 5 years such as Statistics 2500 or Education 2900 or their equivalents.
4. Applicants must hold a practising licence from the Association of Registered Nurses of Newfoundland and Labrador or must be currently registered as a practising nurse in another Canadian jurisdiction. Applicants from other countries who do not meet the above criteria will be assessed on an individual basis. However, they must submit proof of registration as a practising nurse (or an equivalency) from their country or jurisdiction.
5. In addition to the above requirements, candidates seeking admission to the MN-Nurse Practitioner degree option must have two years of clinical experience preferably in their chosen specialty area. As well, candidates must have a letter from a health care agency and a clinical preceptor guaranteeing the candidate a preceptored clinical placement for the final semester of their program.
6. In addition to requirements 1 and 4, candidates seeking admission to the Post Masters Nurse Practitioner Graduate Diploma program must have completed a Masters Degree in Nursing or an equivalent degree with a nursing focus and have two years of clinical nursing experience preferably in their chosen specialty area. As well, candidates must have a letter from a health care agency and clinical preceptor guaranteeing the candidate a preceptored clinical placement for the final semester of their program.
7. Only in exceptional circumstances and only on the recommendation of the School of Nursing shall the Dean of Graduate Studies consider applicants who do not meet admission requirements listed above.

15.3 Registration

See School of Graduate Studies General Regulation **Registration**.

15.4 Programs of Study

There are three routes offered that lead to a Master of Nursing degree: 1. Thesis option, 2. Non-thesis option, and 3. Nurse Practitioner option. Normally the program will require two years to complete when taken on a full-time basis**.**

In addition to the MN degree program, the School of Nursing also offers a Post Masters Nurse Practitioner Graduate Diploma.

1. **Thesis Option**
   a. Candidates must complete an approved program of study consisting of a minimum of 19 credit hours in graduate program courses and a thesis.

      Required courses:
      6010 Research in Nursing I: Quantitative Methods
      6011 Philosophical and Theoretical Foundations of Nursing
      6100 Research in Nursing II: Qualitative Methods
      Either 6200 Nursing Individuals and Families through Life Transitions, and N6210 Nursing Therapeutics for Individuals and Families OR 6220 Concepts for Population-based Nursing, and 6230 Interventions for Population-based Nursing
      One nursing elective

   b. Candidates shall submit a thesis on an approved subject in which systematic research has been conducted under the direction of a Supervisor recommended by the Director and approved by the Dean.

   c. The program of each candidate shall be approved by the Dean on the recommendation of the Director.
2. **Non-thesis Option**
   a. Candidates must complete an approved program of study consisting of a minimum of 28 credit hours in graduate program courses and 6 credit hours in a consolidated practicum.

      Required courses:
      6010 Research in Nursing I: Quantitative Methods
      6011 Philosophical and Theoretical Foundations of Nursing
      6100 Research in Nursing II: Qualitative Methods
      6040 Nursing Informatics
      Either 6200 Nursing Individuals and Families through Life Transitions and 6210 Nursing Therapeutics for Individuals and Families
      OR 6220 Concepts for Population-based Nursing, and 6230 Interventions for Population-based Nursing

      Three of the following courses:
      6020 Program Development in Nursing
      6031 Education in Nursing
      6050 Leadership in Nursing
      6060 Policy and Politics in Nursing and Health Care
      Other approved electives

      One of the following consolidated practicums:
      6610, 6611 Practicum in Advanced Clinical Practice
      6620, 6621 Practicum in Nursing Administration
      6630, 6631 Practicum in Nursing Research/Research Utilization
      6640, 6641 Practicum in Health Policy
      6650, 6651 Practicum in Nursing Education
      The consolidated practicum will normally consist of 300 hours of field experience.

   b. The program of each candidate shall be approved by the Dean on the recommendation of the Director.
3. **Nurse Practitioner Option**
   a. Candidates must complete an approved program of studies consisting of a minimum of 32 credit hours in graduate program courses and an integrated clinical practice experience, comprising 15 credit hours.

      Required courses:
      6010 Research in Nursing I: Quantitative Methods
      6011 Philosophical and Theoretical Foundations of Nursing
      6100 Research in Nursing II: Qualitative Methods
      6020 Program Development in Nursing
      6200 Nursing Individuals and Families through Life Transitions and 6210 Nursing Therapeutics for Individuals and Families
      6700 Clinical Decision Making (6 credit hours)
      6701 Advanced Practice Issues and Role Development (2 credit hours)
      6702 Advanced Clinical Practicum I (96 hours of clinical practice in various health care settings) (3 credit hours)
      One of:6800 to 6809 Nursing Specialty Option Courses (3 credit hours)
      690X Advanced Clinical Practicum II (The integrated practice component will normally consist of a minimum of 500 hours of preceptored specialty clinical practice and biweekly seminars) (15 credit hours)

   b. The program of each candidate shall be approved by the Dean on the recommendation of the Director.
4. **Post Masters Nurse Practitioner Graduate Diploma**
   a. Candidates with a Master's degree in Nursing or an equivalent degree with a nursing focus must complete an approved program of study consisting of a minimum of 14 credit hours in graduate program courses and integrated clinical practice experience, comprising 15 credit hours.

      Required courses:
      6700 Clinical Decision Making (6 credit hours)
      6701 Advanced Practice Issues and Role Development (2 credit hours)
      6702 Advanced Clinical Practicum I (96 hours of clinical practice in various health care settings) (3 credit hours)
      One of: 6800 to 6809 Nursing Specialty Option Courses (3 credit hours)
      690X Advanced Clinical Practicum II (The integrated practice component will normally consist of a minimum of 500 hours of preceptored specialty clinical practice and biweekly seminars) (15 credit hours)

b. Programs for some candidates may exceed the above minimum requirements.

c. The program for each candidate shall be approved by the Dean on the recommendation of the Director.

15.5 Evaluation

1. In order to continue in graduate studies and in order to qualify for a Master's degree, a candidate shall obtain an A or B grade in each program course.
2. If the candidate is in the Non-thesis Option, the candidate must obtain a Pass grade for the practicum component of the program.
3. When the Director of the School of Nursing has determined on the basis of consultation with the candidate, the Associate Director, Graduate Program and Research, and the thesis or practicum Supervisor, that a candidate has fallen below a satisfactory level, the Director may recommend to the Dean that such a candidate be required to withdraw from the program.
4. To remain in good standing candidates are required to maintain professional behaviour consistent with the current Code of Ethics of the Canadian Nurses Association and, when applicable, the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans. Candidates who fail to meet this requirement will be required to withdraw from the School of Nursing upon recommendation of the Graduate Studies Committee.

15.6 Thesis

See School of Graduate Studies General Regulation **Theses and Reports**.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates as far as the resources of the School of Nursing will allow:

6010 Research in Nursing I: Quantitative Methods (4 credit hours)
6011 Philosophical and Theoretical Foundations of Nursing (3 credit hours)
6020 Program Development in Nursing (3 credits hours) (Pre or co-requisite: 6011)
6031 Education in Nursing (3 credit hours) (Not required by students who have completed 6030. Credit may not be obtained for both 6030 and 6031)
6040 Nursing Informatics (3 credit hours)
6050 Leadership in Nursing (3 credit hours)
6060 Policy and Politics in Nursing and Health Care (3 credit hours)
6100 Research in Nursing II: Qualitative Methods (3 credit hours)
6200 Nursing Individuals and Families through Life Transitions (3 credit hours). Pre or co-requisite: 6011 (Not required by students who have completed 6400)
6210 Nursing Therapeutics for Individuals and Families (3 credit hours) Pre or co-requisite: 6200 (Not required by students who have completed 6400)
6220 Concepts for Population-Based Nursing (3 credit hours) Prerequisites: 6011 (Not required by students who have completed 6410)
6230 Interventions for Population-Based Nursing (3 credit hours) Pre or co-requisite: 6220 (Not required by students who have completed 6410)
6310-6350 Special Topics in Nursing (electives)
6501-10 Individual Readings and Research in Special Areas
6610-6611 Practicum in Advanced Clinical Practice (6 credit hours) (Prerequisites: All required and elective courses including 6020 and 6050)
6620-6621 Practicum in Nursing Administration (6 credit hours) (Prerequisites: All required and elective courses including 6050 and 6060)
6630-6631 Practicum in Nursing Research/Research Utilization (6 credit hours) (Prerequisites: All required and elective courses including 6060)
6640-6641 Practicum in Health Policy (6 credit hours) (Prerequisites: All required and elective courses including 6050 and 6060)
6650-6651 Practicum in Nursing Education (6 credit hours) (Prerequisites: All required and elective courses including 6020 and 6031)
6700 Clinical Decision Making (6 credit hours)
6701 Advanced Practice Issues and Role Development (2 credit hours)
6702 Advanced Clinical Practicum I (96 hours of clinical practice in various health care settings) (3 credit hours)
One of: 6800 to 6809 Nursing Specialty Option Courses (3 credit hours)
690X Advanced Clinical Practicum II (The integrated practice component will normally consist of a minimum of 500 hours of preceptored specialty clinical practice and biweekly seminars)(15 credit hours)

16 Regulations Governing the Degree of Master of Oil and Gas Studies

Academic Director

To be determined

The Master of Oil and Gas Studies (MOGS) is a comprehensive, multi-disciplinary academic program that provides a broad and fundamental knowledge of the entire oil and gas industry value chain.

The MOGS program is offered by full-time study and involves 31 credit hours of course work, including a seminar course and an integrative case study. Candidates registered on a full-time basis will normally complete the program in one academic year.

The following regulations must be read in conjunction with the **General Regulations** of the School of Graduate Studies of Memorial University of Newfoundland.

16.1 Administration

1. The program shall be administered by an Academic Director, who shall be appointed by the Dean of Graduate Studies following discussion with the Executive Director of the Oil and Gas Development Partnership (OGDP).
2. The Academic Director shall be the Chair of a Board of Studies for MOGS for the purposes of administering the program. The Board of Studies will consist of one member from each of the Faculties of Arts, Business Administration, Engineering and Applied Science, and Science, and the Executive Director of the OGDP (*ex officio*). Appointments of the members of the Board of Studies will be by the Dean of Graduate Studies following discussion with the Executive Director OGDP. Normally all appointments will be for a period of three (3) years.
3. A MOGS Advisory Board, composed of a broad cross-section of members from both industry and Memorial University of Newfoundland, shall be appointed. This Advisory Board will consult with industry and provide feedback on the contents, instruction

and future direction of the MOGS program. The Academic Director and the Executive Director OGDP will be *ex officio* members of the Advisory Board, and will recommend the appointment of the Advisory Board members to the Dean of Graduate Studies, who will also be an *ex officio* member of the Advisory Board.

16.2 Qualifications for Admission

1. Admission is limited and competitive.
2. To be considered for admission to the MOGS program, an applicant shall normally have:
   a. An undergraduate degree, in an oil and gas cognate discipline, with a minimum B standing, from an institution recognized by Senate; and
   b. A minimum of five (5) years employment experience in the oil and gas sector.
3. In exceptional cases, applicants who have not completed an undergraduate degree may be considered for admission. Non-degree holding applicants must demonstrate significant professional experience and success in the oil and gas sector and have completed a significant portion of discipline related courses of the undergraduate degree program that meets the criteria in regulation 2.a. above.

16.3 Deadlines for Applications

While the deadline for submission of applications for candidates wishing to enter full-time studies in the Fall (September) Semester is March 15, applications received after that date will be considered as time and resources permit.

16.4 Procedure for Admission

1. Applications for admission to the MOGS program must be made on the appropriate form and submitted to the School of Graduate Studies.
2. The following documents must be submitted in support of the official application form:
   a. Letter of appraisal from three referees, at least one of whom is capable of appraising the applicant's academic potential as a graduate student, and at least one of whom is capable of appraising the applicant's professional experience and/or actual or likely success in a career in the oil and gas sector.
   b. Two official transcripts from each university or other post-secondary institution previously attended, to be sent directly by its Registrar (or equivalent officer) to the School of Graduate Studies. If not recorded on the transcript, official evidence of completion of an undergraduate degree must also be submitted.
3. Application files are normally evaluated after the deadline dates for application noted above and only when all required documentation has been received.
4. Admission shall be by the Dean of Graduate Studies on the recommendation of the Board of Studies. Upon notification from the Dean of Graduate Studies of acceptance into the MOGS program, applicants must, within thirty (calendar) days, give written notice to the School of Graduate Studies of their intention to register.

16.5 Program of Study

1. The MOGS program consists of 31 credit hours of course work. These include four compulsory, core courses (12 credit hours) shown in Table I; three elective courses (9 credit hours) drawn from Table II; a compulsory, integrative case study (3 credit hours); a compulsory seminar course (1 credit hour); and compulsory project course (6 credit hours).
2. The compulsory core courses (Table I) introduce students to the four main areas of study in the program: petroleum management, petroleum production, petroleum exploration, and petroleum policy and planning.
3. Electives allow students to specialize in one or more of the four main areas of study. Electives must be chosen from the list in Table II. The Board of Studies may from time to time and following approval add other courses to Table II.
4. The integrative case study will involve all students and a number of instructors from the different disciplines in MOGS. It is intended to integrate the decision-making process in a specific petroleum prospect from play concept, to discovery, to production and finally to product and market. A case study shall be chosen by the instructors of the four compulsory, core courses.
5. The seminar course requires students to research a specific topic in an area of interest and present the results of their research both as an oral and written presentation. Participation in the seminar course is compulsory for all students.
6. The project course will span two semesters. Normally the project course will be conducted as a group exercise to enhance the interdisciplinary nature of the project. At the beginning of the second semester, each team identifies the topic of the project, conducts the relevant literature survey, writes a proposal, and identifies a mentor or mentors. In the third semester, the team completes the project, and writes the final report. An oral presentation of the final paper is generally required. The mentor(s) provides the team with technical support and guidance.
7. A waiver of a core course may be granted by the Dean of Graduate Studies on the recommendation of the Academic Director if the candidate can demonstrate that the material in the course has been substantially covered by other courses taken at this or another recognized university. In such cases, the course must be replaced by another graduate course offered by Memorial University of Newfoundland. The selection of the replacement course shall be made in consultation with the candidate, and approved by the Dean of Graduate Studies on recommendation of the Academic Director. The maximum number of core courses that can be waived is one and the replacement course must be taken during the candidate's period of enrollment in the program.
8. Each student's program of study must be approved by the Academic Director and the Dean of Graduate Studies.

16.6 Evaluation

1. Candidates for the Master of Oil and Gas Studies (MOGS) Degree must obtain a grade of B or better in all program courses.
2. Candidates who receive a grade of less than B in any course will be permitted to remain in the program provided the course is repeated and passed with a grade of B or better. Alternatively, the candidate may, on the recommendation of the Academic Director, and with the approval of the Dean of Graduate Studies, substitute another graduate course. Only one course repetition or substitution will be permitted during the candidate's program after which the candidate shall be required to withdraw from the program.

16.7 Courses

The schedule of courses for the MOGS program is as follows:

Table I - Master of Oil and Gas Studies Schedule of Core Courses

6201 Strategic Management in the Oil and Gas Industry 6401 Petroleum Production, Processing and Transportation	6601 Petroleum Exploration, Appraisal and Development 6801 Social and Economic Dimensions of Policy and Planning

Table II - Master of Oil and Gas Studies Elective Courses

6001 Occupational Health, Safety and Environment 6002 Environmental Impact Assessment and Management 6003 Risk Analysis in the Oil and Gas Industry 6006 Project Management	6411 Facilities, Feedstock and Products 6412 Designing for and Operating in the Harsh Offshore Environment 6611 Reservoir Characterization and Management 6811 Economics of Petroleum Exploration and Development

Table III - Master of Oil and Gas Studies Compulsory Courses

6005 Graduate Seminar 6008 Integrative Case Study	6099 Project

17 Regulations Governing the Degree of Master of Philosophy and Specific Program Regulations

Programs leading to this degree are offered at present in German Language and Literature, Humanities, and in Sociology.

17.1 Qualifications for Admission

1. Admission is limited and competitive. To be considered for admission an applicant shall hold a Bachelor's degree or its equivalent from an institution recognized by the Senate and shall have a knowledge of his or her proposed field of specialization satisfactory to the Department(s) concerned when interdisciplinary study is intended or to the Board of Studies in the case of the program in Humanities, and to the Dean.
2. Preference will normally be given to applicants who hold an appropriate Honours degree either from Memorial University of Newfoundland, or from another university whose Honours degree is of comparable standing. Any other applicant who holds a Bachelor's degree or its equivalent will 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 Department or Board of Studies satisfies the Dean that the applicant's work exhibits evidence of academic excellence.

   Only in exceptional circumstances, and only on the recommendation of the Department or the Board of Studies, will the Dean consider applicants who do not meet the requirements a. and b. Such applicants, however, must meet the requirement c.
3. An applicant may be required to demonstrate a satisfactory knowledge of the proposed field of study in an examination administered by the Department(s), or Board of Studies.
4. Applicants whose mother tongue is not English are reminded that a high degree of literacy in English is required of students at the University. In most cases instruction is in English, and examinations are to be written in English. (Language departments, however, give instruction in the pertinent language and often require examinations to be written in that language. In addition, other departments may permit and even require examinations to be written in a language other than English).
5. An applicant may be required to pass a qualifying examination.

Note: *Some Departments have particular regulations in addition to these, and applicants are advised to turn to the relevant parts of this Calendar and acquaint themselves with both the **General Regulations** and the regulations of the program in which they are interested.*

17.2 Program of Study

1. Every candidate shall read at least 30 credit hours in program courses in one subject or in a combination of closely related subjects as recommended by the Department(s) or Board of Studies, and approved by the Dean.
2. A candidate may be required also to take additional credit hours in program courses, which must be recommended by the Department(s) or Board of Studies, and approved by the Dean.
3. Students registered in the program in Humanities will be required to maintain and submit for evaluation a program Journal (See Program of Study, 3. of the Regulations for the Degree of Master of Philosophy in Humanities).
4. No candidate while classified as a part-time student may take more than 6 credit hours in any one semester.
5. No candidate may take more than 9 credit hours in graduate courses in a single semester, nor any credit hours in undergraduate courses at the same time as 9 credit hours in graduate courses; in no case may graduate and undergraduate credit hours combined exceed 12 in any one semester.
6. The course program will culminate in a general comprehensive examination (see **Evaluation - General Comprehensive Examination** below).
7. Every candidate shall be assigned to a tutor recommended by the Department(s) or Board of Studies and approved by the Dean.
8. The Dean may approve an application to transfer from the M.Phil. to the M.A. only when a new integrated program, acceptable to the Dean, is submitted.

17.3 Period of Study

The period of study for the Master of Philosophy degree shall not normally exceed three years, during which time the candidate shall spend at least two semesters in full-time attendance as a graduate student at this University.

17.4 Evaluation

*See also **Evaluation** under General Regulations*

1. Students registered in undergraduate courses shall satisfy examination requirements in these courses.
2. The academic requirements for the degree of Master of Philosophy shall be met when the candidate has successfully completed all course requirements of the program and has passed a general examination which consists of both written and oral parts. The Dean, on the recommendation of the Department(s) or Board of Studies, shall determine the times and places for general examinations; and, on the recommendation of the Department(s) or Board of Studies, shall appoint examiners, one of whom shall be from outside the Department(s) concerned. In the M.Phil. in Humanities, a program Journal is also required.

17.5 Evaluation - General Comprehensive Examination

1. Each candidate must pass a general comprehensive examination.
2. The examination committee shall be appointed by the Dean on the recommendation of the Department(s) or Board of Studies. The committee shall consist of either three or five members, at least one of whom must come from outside the Department(s) concerned. The candidate shall be informed of the names of the committee well before the examination.
3. The candidate and the tutor will normally agree when the candidate may sit the general comprehensive examination. However, the Department(s) or Board of Studies must accede to the candidate's request to sit a comprehensive examination, except that in no circumstances may a candidate attempt the general comprehensive examination before his or her course program is completed.
4. The schedule for the examination shall be agreed by the candidate, the tutor, and the examining committee, and shall be promulgated by the Dean.
5. The examination shall consist of a written part and an oral part. The time between the written and the oral parts shall normally be from one to four weeks.
6. The oral examination shall be from one to three hours in length, and shall be conducted by the examining committee, and shall be open to the examination committee and to members of the Department(s) or Board of Studies only.
7. A candidate must satisfy the examining committee in both parts of the examination to obtain a pass.
8. The successful completion of the comprehensive examination is the final academic requirement for the Master of Philosophy degree.

17.6 Departmental Regulations

Every candidate in a graduate program shall comply with any additional program requirements and with the **General Regulations**.

17.7 German

Associate Professor and Head of the Department
E. Warkentin

The degrees of Master of Arts and Master of Philosophy are offered in German Language and Literature and may be taken by full-time or part-time study. No graduate work is offered in Russian at this time.

1. In addition to the general requirements, candidates will be expected to have acquired a superior knowledge of the spoken and written language and may, depending on their academic background and field of specialization, be asked to take advanced undergraduate courses.
2. All candidates will complete at least 15 credit hours and a thesis for the M.A. and at least 30 credit hours for the M.Phil., and the entire program of study and research will normally be of two-years' duration.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

6000 German Civilization I
6001 German Civilization II
6100 History of the German Language I
6101 History of the German Language II
6200 Medieval German Literature I
6201 Medieval German Literature II
6300 German Literature, 1500-1700 I
6301 German Literature, 1500-1700 II
6400 German Literature of the Enlightenment and Storm and Stress I
6401 German Literature of the Enlightenment and Storm and Stress II
6500 German Classicism I
6501 German Classicism II
6600 German Romanticism I
6601 German Romanticism II
6700 German Realism I
6701 German Realism II
6800 German Literature, 1880-1933 I
6801 German Literature, 1880-1933 II
6900 Contemporary German Literature I
6901 Contemporary German Literature I
7000 Special Subject or Author I
7001 Special Subject or Author II
7002-7020 Special Topics in German Studies

Deutsch

Professor und Vorstand der Abteilung
E. Warkentin

Auf dem Gebiet der Germanistik werden die Grade Master of Arts (Magister Artium) und Master of Philosophy (Magister Philosophiae) geboten. Sie können sowohl von voll-wie auch von halbzeitlich Studierenden erworben werden. Auf dem Gebiet der Slawistik wird z.Zt. kein weiterführendes Studium geboten.

1. Ausser den allgemeinen Zulassungsbestimmungen wird von den Kandidaten überdurchschnittliche Kenntnis des Deutschen in Sprache und Schrift erwartet. Ihrer akademi-schen Vorbildung und ihrem Fachgebiet entsprechend, kann ihnen eventuell geraten werden, gleichzeitig fortgeschrittene Kurse der Unterstufe zu belegen.

2. Für den Master of Arts sind mindestens 15 Kreditstunden zu absolvieren und eine wissenschaftliche Arbeit in Überein-stimmung mit den allgemeinen Zulassungsbestimmungen einzureichen, für den Master of Philosophy sind mindestens 30 Kreditstunden vorgeschrieben. Das ganze Studien program dauert normalerweise zwei Jahre.

Kurse

Von den hier aufgeführten Kursen für Graduierte wird jeweils eine Auswahl angeboten, die sowohl den Anforderungen des Studierenden wie den Möglichkeiten der Abteilung gerecht wird.

6000 Deutsche Kulturkunde I
6001 Deutsche Kulturkunde II
6100 Geschichte der deutschen Sprache I
6101 Geschichte der deutschen Sprache II
6200 Mittelhochdeutsche Literatur I
6201 Mittelhochdeutsche Literatur II
6300 Deutsche Literatur 1500-1700 I
6301 Deutsche Literatur 1500-1700 II
6400 Deutsche Literatur der Aufklärung und des Sturm und Drang I
6401 Deutsche Literatur der Aufklärung und des Sturm und Drang II
6500 Deutsche Klassik I
6501 Deutsche Klassik II
6600 Deutsche Romantik I
6601 Deutsche Romantik II
6700 Deutscher Realismus I
6701 Deutscher Realismus II
6800 Deutsche Literatur 1880-1933 I
6801 Deutsche Literatur 1880-1933 II
6900 Deutsche Gegenwartsliteratur I
6901 Deutsche Gegenwartsliteratur II
7000 Wahlthema oder-Autor I
7001 Wahlthema oder-Autor II
7002-7020 Wahlthemen in German Studies

17.8 Humanities

Director, Board of Studies
P. Trnka

The Master of Philosophy in Humanities has been designed for students from any discipline. It is directed to students who hold an honours bachelor's degree or its equivalent. The object of the M.Phil. in Humanities program is to provide students with an opportunity to see the historical and logical context of their own disciplinary points of view. The program is based on the interaction of a group of students of varying backgrounds and interests studying a common core of texts in a shared set of courses.

The program draws scholarly participation from faculty members in a range of academic disciplines within the School of Graduate Studies. The program is administered by a Board of Studies with membership appointed by the Dean of Arts, chosen from the participating faculty.

Master of Philosophy

See also General Regulations governing the degree of Master of Philosophy.

This program is offered by the Faculty of Arts, and will draw scholarly participation chosen from those appropriately qualified faculty members wishing to participate, regardless of Department or Faculty affiliation.

17.8.1 Qualifications for Admission

1. Admission is limited and competitive. The number of students admitted to the program will be strictly limited to ensure small classes and maximum student-faculty contact. To be considered for admission an applicant will normally hold an Honours Bachelor's degree (or equivalent) from an institution recognized by the Senate, and will have a breadth of knowledge in one or more of the Humanities disciplines satisfactory to the Board of Studies, and to the Dean.
2. Applicants who do not hold an Honours degree (or equivalent) will be required to complete, prior to admission, a number of undergraduate courses, the nature and number of which will be determined on the basis of the applicants' undergraduate record by the Director of Studies in consultation with the Board of Studies. Candidates will be required to complete such designated pre-admission courses with a minimum overall average of 70%.

17.8.2 Administration

1. The program will be administered by a Board of Studies, the members of which will be appointed by the Dean of Arts chosen from the participating faculty.
2. There will be a Director of Studies who will be an *ex officio* of the Board of Studies and will make recommendations to the Dean concerning admission, financial support for students, and all other matters pertaining to the program.
3. Responsibility for the allocation of teaching and the support of related research will be managed by agreement between the Deans of the appropriate Faculties, the Heads of Departments of participating faculty members, and the Director of Studies, in consultation with the Dean of Graduate Studies.
4. The Board of Studies will be empowered to secure external grant funding where appropriate, and to manage all related administrative and financial matters as necessary.

17.8.3 Program of Study

1. Every candidate shall normally read 30 credit hours in the 10 regulation courses listed below.
2. With permission of the Director of Studies, a candidate may elect to substitute up to two of these courses with courses from other graduate programs in this University. Attendance in other programs requires the permission of the departments involved. (See also School of Graduate Studies General Regulation **Program Requirements, Transfer of Course Credits** which allows for further transfer of credits already taken but not yet applied to a graduate degree.)
3. Every candidate shall be required to maintain and submit a program Journal which will be monitored and evaluated by the Board of

Studies. The Journal will comprise the candidate's critical reflections arising out of analyses of designated key themes common to the several disciplines which constitute the program.

17.8.4 Comprehensive Examination

1. Each candidate must pass a general comprehensive examination.
2. The Examination Committee shall be appointed by the Dean of Graduate Studies on the recommendation of the Board of Studies. The Committee shall normally consist of three members. One member of the Committee is normally the tutor. The candidate shall be informed of the names of the committee well before the examination.
3. The candidate and the tutor will normally agree when the candidate may sit the general comprehensive examination. However, the Board of Studies must accede to the candidate's request to sit a comprehensive examination, except that in no circumstances may a candidate attempt the general comprehensive examination before his or her course program is completed.
4. The schedule for the examination shall be agreed by the candidate, the tutor, and the Examining Committee, and shall be promulgated by the Dean.
5. The examination shall consist of a written part and an oral part. The time between the written and the oral parts shall normally be from one to four weeks.
6. The program journal is an extended paper or series of linked papers which analyses and reflects critically on issues encountered by the candidate during the course of the program. Papers and/or projects completed during courses may be incorporated into the program journal, but shall not, of themselves, constitute the entire journal.
7. The oral examination shall be from one to three hours in length, shall be conducted by the Examining Committee, and shall be open only to the Examination Committee, members of the Board of Studies and members of the Departments concerned.
8. A candidate must satisfy the Examining Committee in both parts of the examination to obtain a pass.
9. The successful completion of the comprehensive examination is the final academic requirement for the Master of Philosophy degree.

Courses

6000 Speaking and Writing I
6001 Speaking and Writing II
6010 Readings in History I
6011 Readings in History II
6020 Readings in Western Literature I
6021 Readings in Western Literature II
6030 Readings in Philosophy I
6031 Readings in Philosophy II
6040 Readings in Science and Technology
6041 Seminar in Humanities

17.9 Sociology

Professor and Head of the Department
S.H. Riggins

Master of Philosophy

1. Minimum admission requirements are a B average in undergraduate studies with a good undergraduate record in Sociology.
2. The Master of Philosophy requires the completion of 30 credit hours including the Graduate Seminar (6880) and Methods (6040). Other courses will be selected in consultation with the chair of the department's graduate studies committee.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

6040 Methods of Sociological Research
6090-94 Special Area in Sociology
6120 Social Organization
6130 Social Stratification
6140 The Community
6150 Social Theory
6160 Theory Construction and Explanation in Sociology
6240 Sociology in Medicine
6280 Social and Economic Development
6300 Maritime Sociology
6310 Political Sociology
6320 Gender and Society
6330 Science and Technology
6340 Comparative North Atlantic Societies
6350 Environmental Sociology
6360 Sociology of Work
6370 Feminist Theory and Methods
6380 Women, Nature, Science and Technology (Cross listed as Women's Studies 6380)
6610 Socialization
6620 Current Topics in Social Behaviour
6880 Sociology Graduate Seminar

18 Regulations Governing the Degree of Master of Physical Education

Professor and Director of the School
M. Bluechardt

The degree of Master of Physical Education is offered by full-time and part-time study.

18.1 Qualifications for Admission

1. Admission is limited and competitive. To be considered for admission an applicant shall normally hold a Bachelor's Degree in Physical Education, Recreation and Leisure Studies or a related discipline, with at least second class standing, from an institution recognized by Senate. In addition to the above, preference will be given to applicants with work experience, obtained either through Cooperative Education programs or through employment deemed appropriate.
2. Any other applicant who holds a Bachelor of Physical Education or Recreation and Leisure Studies degree or its equivalent 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 physical education and/or recreation and leisure studies courses, OR
   b. the applicant has raised his/her overall academic standing to second class following the completion of the undergraduate degree, through the successful completion of an approved pattern of undergraduate courses.
3. Only in exceptional circumstances and only on the recommendation of the School of Human Kinetics and Recreation shall the Dean of Graduate Studies consider applicants who do not meet these admission requirements.

18.2 Program of Study and Research

1. The degree of Master of Physical Education is offered under two options:

   Option I. The program shall consist of a minimum of 15 credit hours in graduate courses plus a thesis. The thesis shall be on an approved subject in which systematic research has been conducted by the candidate under the direction of the Supervisor.

   Option ii. The program shall consist of a minimum of 24 credit hours in graduate courses plus a comprehensive examination in the candidate's major area of study.
2. The candidate's major area of study shall be Administration, Curriculum and Supervision in Physical Education.

   In conjunction and collaboration with other Faculties and Schools of Memorial University of Newfoundland, students may pursue their special interests through an interdisciplinary course of study. The student's interests may be accommodated through individual reading and research in these special areas.
3. The required courses for the degree shall normally include as a basic core the courses HKR 6000, 6001, and 6120. Equivalent courses may be substituted from other Faculties or Schools subject to the approval of the School of Human Kinetics and Recreation Graduate Studies Committee.
4. The remaining courses shall be chosen in consultation with the student's supervisor subject to approval by the Dean of Graduate Studies.

18.3 Evaluation

1. Candidates must obtain an A or B grade in each program course. In accordance with General Regulation **Evaluation, Evaluation of Graduate Students** only one course may be repeated.
2. When the Director has determined, on the basis of consultation with the candidate and the instructors, that a candidate's work has fallen below a satisfactory level, he or she may recommend to the Dean of Graduate Studies that the candidate be required to withdraw from the program.

18.4 Thesis Report

1. Evaluation of the thesis shall be governed by Graduate Studies General Regulation **Theses and Reports**. The thesis shall normally be evaluated by two examiners approved by the Dean.
2. When the thesis, has been completed to the satisfaction of the Dean, the Dean shall recommend that the candidate be awarded the degree.

18.5 Comprehensive Examinations

1. Candidates electing to qualify for the degree under Option ii. must write a comprehensive examination. The comprehensive examination shall examine the candidate's ability to relate the area of specialization to the area of the core studies. The candidate may be required to appear for an oral examination.
2. The comprehensive examination shall normally be constructed and evaluated by an examining committee of three examiners, at least two of whom shall be faculty members of the School of Human Kinetics and Recreation appointed by the Dean on the recommendation of the Director of the School.
3. A candidate may not write the examination before completing the course work for the degree.

Note: *Every candidate in graduate studies shall comply with the **General Regulations**, the degree regulations and any additional requirements of the Department.*

Courses

6000 Quantitative Methods in Physical Education
6001 Qualitative Research Methods in Physical Education
6002 Scientific and Cultural Foundations of Physical Education
6110 Physical Education, Recreation and Sport Management
6111 Canadian Delivery Systems in Physical Education, Recreation and Sport
6120 Curriculum Development in Physical Education
6130 Computer Applications in Physical Education
6410 Sport and Society
6420 History of Physical Education and Sport
6XXX Contemporary Issues and Trends in Physical Education
6610-15 Individual Reading and Research in Special Areas

19 Regulations Governing the Degree of Master of Science and Specific Program Regulations

Professor and Dean
C.R. Lucas

Professor and Associate Dean (Research)
D. Schneider

Tuition leading to this degree is offered at present in Aquaculture, Biochemistry, Biology, Chemistry, Cognitive and Behavioural Ecology, Computational Science, Computational Science (Co-operative), Computer Science, Earth Sciences (Geology), Earth Sciences (Geophysics), Environmental Science, Experimental Psychology, Food Science, Geography, Instrumental Analysis, Marine Biology, Mathematics, Physical Oceanography, Physics, Statistics. Interdisciplinary studies are encouraged; applicants should consult the academic unit concerned.

19.1 Qualifications for Admission

1. Admission is limited and competitive. To be considered for admission an applicant will normally hold at least 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 recognized by the Senate, and shall have knowledge of the proposed field of specialization satisfactory to the Dean.
2. 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.

   In addition, an applicant may be required to demonstrate a satisfactory knowledge of the proposed field of study in an examination administered by the academic unit concerned.
3. Only in exceptional circumstances, and only on the recommendation of the academic unit concerned, will the Dean consider applicants who do not meet these requirements of Clause 2.
4. Applicants who do not possess the prerequisite academic qualifications should consult the appropriate academic unit about a program of further undergraduate courses. Such a program will be intended to raise their qualifications to a level considered academically equivalent to Honours. Such courses may not be used to fulfill the regulation course requirements of the M.Sc. degree.
5. A high degree of literacy in English is required of all graduate students in the University.

Note: *Some Departments have specific regulations in addition to those outlined above, and prospective applicants are advised to turn to the relevant part of this Calendar and acquaint themselves with the regulations of the Department or appropriate academic unit in which they are interested.*

19.2 Program of Study and Research

1. The program of study for the Master of Science degree shall consist of the successful completion of a program of courses and, in accordance with the specific program regulations, either of a thesis embodying original research or of a project and report.
2. Every candidate shall read at least 6 credit hours in graduate program courses in one subject or in closely related subjects, and such other courses as may be required in an individual program. Undergraduate courses may, if necessary, be included as additional courses.
3. Where departmental regulations require more than the minimum number of credit hours, the Dean, on the recommendation of the appropriate academic unit, may waive in part the credit hour requirements for a Master's degree, provided that no student may take less than the 6 required credit hours in graduate program courses.
4. Students may, with the approval of the Dean, augment their studies with 6 credit hours in other courses of their choice. The grading system in non-program courses shall be that appropriate to the particular course, and the final grades in these courses will be recorded on the student's transcripts. However, passing grades are not required in these non-program courses in order to continue in graduate studies or obtain a Master's degree. (See General Regulation **Evaluation, Evaluation of Graduate Students**).
5. Every candidate shall submit a thesis or report on an approved subject in which systematic research has been conducted under the direction of a Supervisor recommended by the academic unit concerned and approved by the Dean. The candidate may be required to take an oral examination.
6. The program of courses, the thesis or report topic and the Supervisor, and all changes in these, must be approved by the Dean.

19.3 Evaluation

1. In order to continue in the School of Graduate Studies and in order to qualify for a Master's degree, a candidate shall obtain an A or B grade in each program course. (See General Regulation **Evaluation, Evaluation of Graduate Students**).
2. When it has been determined, on the basis of consultation with the candidate, the instructors in graduate courses, and the thesis or report Supervisor, that a candidate's work has fallen below a satisfactory level, the Supervisor or the Head of the appropriate academic unit may recommend to the Dean that such a candidate be required to withdraw from the program.

19.4 Thesis

See General Regulation Theses and Reports

Note: *Every candidate in graduate studies shall comply with the General Regulations, the degree regulations and any additional requirements of the appropriate academic unit.*

19.5 Aquaculture

Administrative Committee
C. Couturier, Fisheries and Marine Institute - Chair
K. Gamperl, Ocean Sciences Centre
L. Halfyard, Fisheries and Marine Institute
C. Parrish, Ocean Sciences Centre
F. Shahidi, Department of Biochemistry

The program of study leading to the Master of Science in Aquaculture is designed to instruct students in research using scientific principles derived from a wide range of disciplines including Biology, Biochemistry and Food Science. Research problems may involve field and laboratory studies on various marine and freshwater flora and fauna. The Aquaculture group consists of faculty members from the Fisheries and Marine Institute of Memorial University of Newfoundland, the Ocean Sciences Centre (OSC), and the Departments of Biology and Biochemistry of Memorial University of Newfoundland.

The Aquaculture Administrative Committee is responsible for the program. This Committee is composed of five appointed members, two from the OSC, two from the Fisheries and Marine Institute of Memorial University of Newfoundland, and one member from an appropriate academic unit at Memorial University of Newfoundland. In addition, the Heads of the Departments of Biochemistry and Biology, the Director of the OSC and the Head of the School of Fisheries of the Fisheries and Marine Institute of Memorial University of Newfoundland are *ex-officio* members. The Committee is appointed by the Dean of Graduate Studies on the recommendation of the appropriate Heads and Directors. The Committee makes recommendations to the Dean of the School of Graduate Studies concerning the academic requirements of the program: admission, course programs of individual students, financial support, composition of supervisory committees, and theses examiners. The Chair of the Committee will also ensure that a supervisory report form for each student in the program is submitted annually to the Dean.

19.5.1 Qualifications for Admission

To be considered for admission to the Master of Science in Aquaculture, an applicant shall normally hold one of the following: at least a second class Honours degree, or an equivalent both in achievement and depth of study, from an institution recognized by the Senate, or successful completion of the Diploma in Aquaculture offered by the Fisheries and Marine Institute of Memorial University of Newfoundland, with academic standing deemed appropriate by the Committee.

19.5.2 Program of Study

1. The Master of Science degree requires the successful completion of a program of courses and of a thesis embodying original research.
2. All candidates will be required to take 6 credit hours in graduate courses which will normally be Aquaculture 6000 - Shellfish Culture and Enhancement, and Aquaculture 6100 - Finfish Aquaculture.
3. Candidates who do not hold the Diploma in Aquaculture will be required to complete successfully a selection of its component courses.
4. Further courses may be required depending on the background of the individual student.
5. Once in the program, M.Sc. students must achieve a minimum grade of 65% in all required courses.
6. Before the thesis is submitted, the student shall present an open seminar on the topic of investigation to the appropriate academic units, as recommended by the Administrative Committee. Any serious deficiencies in the thesis noticed at this stage should be carefully considered, in consultation with the supervisor, for rectification.
7. The student will be required to comply with all other regulations governing the graduate degree of Master of Science.

Courses

6000 Shellfish Culture and Enhancement
6100 Finfish Aquaculture
6200 Aquaculture and the Environment
6201-6209 Special Topics in Aquaculture (Prerequisite: Permission of Chair of Program)

Note: *Consult the Program for a list of titles and information regarding availability.*

19.6 Biochemistry

Professor and Head

M. Mulligan

1. The degree of Master of Science is offered in Biochemistry or Food Science to full-time and part-time students.
2. The admission requirements for the graduate programs in Biochemistry and Food Science are as given under General Regulations governing M.Sc. degrees. Depending on the background and/or area of specialization, a candidate's program may include additional courses taken for credit in Biochemistry, Food Science or related subjects.
3. The program of a candidate for the M.Sc. degree shall be the responsibility of the supervisory committee, composed of the Supervisor and at least two other faculty members recommended with the concurrence of the Supervisor by the Head of the department or delegate.
4. It is the responsibility of the student to arrange regular meetings with their supervisory committee. An annual report, prepared by the Supervisor and signed by all members of the supervisory committee, is required to be given to the Head of the department or delegate.
5. All graduate students are expected to attend and participate in the departmental seminars.
6. A student completing an M.Sc. degree will be required to present a seminar on his/her research area. The seminar will normally take place during the last semester of the student's program.

   Any deficiencies noted during the seminar should be carefully considered by the student and the supervisory committee prior to submission of the thesis for final examination.

Courses

A series of advanced courses in the areas outlined below will be offered. Normally only one course will be offered per semester.

6200 Current Biochemical Research Topics I
6210 Current Biochemical Research Topics II
6400 Control of Intermediary Metabolism
6410 Molecular Endocrinology
6420 DNA: The Structure and Function of Genes (Prerequisite: An introductory course in molecular biology, or its equivalent, at the senior undergraduate level, e.g. Biochemistry 4100)
6421 RNA: Structure, Function and Synthesis (Prerequisite: An introductory course in molecular biology, or its equivalent, at the senior undergraduate level, e.g. Biochemistry 4100)
6422 Regulation of Protein Synthesis (Prerequisite: An introductory course in molecular biology, or its equivalent, at the senior undergraduate level, e.g. Biochemistry 4100)
6430 Bioenergetics

6440 Membranes
6450 Proteins
6500 Enzymology
6520 Nutritional Biochemistry
6530 Food Biochemistry
6590 Molecular Biology I *(Cross listed as Biology 6590 and Medicine 6590)*, Prerequisites: Biology 4241, Biochemistry 4100 (or equivalent)
6591 Molecular Biology II *(Cross listed as Biology 6591 and Medicine 6591)* Prerequisites: Biology 4241, Biochemistry 4100 (or equivalent)
6592 Bacterial Genetics *(Cross listed as Biology 6592)* Prerequisite: Biology 4241 or Biochemistry 4100 (or equivalent)
6593 Selected Readings in Molecular Biology *(Cross listed as Biology 6593)*, Prerequisites or Co-requisites: Biology 6590, 6591/ Biochemistry 6590, 6591/Medicine 6590, 6591 (or equivalent)
6600 Metabolic Toxicology
6610 Comparative Biochemistry
6620 Biochemical Adaptation
6630 Marine Biochemistry
6640 Biochemistry of Cancer
6650 Science and Technology of Seafoods
6660 Industrial Microbiology
6670 Biological Waste Treatment
6680 Processing and Quality of Foods

19.7 Biology

Associate Professor and Head
P. Marino

The degree of Master of Science is offered in Biology and Marine Biology to full-time and part-time students. Students interested in animal behaviour should also consult the section in the Calendar describing the Master of Science in Cognitive and Behavioural Ecology program. In addition, a Master of Science degree is offered in Aquaculture. See appropriate sections of this Calendar.

19.7.1 Biology

1. The program of a candidate shall be the responsibility of a Supervisory Committee composed of the Supervisor and at least two other appropriate members recommended to the Dean by the Head (or delegate) of the Department with the concurrence of the Supervisor.
2. The Supervisory Committee shall interview the student normally within a month of first registration, to discuss the student's program and to explore any areas of weakness in the candidate's biological knowledge, especially where these relate to the intended areas of research.
3. A student will be required to take a minimum of 6 credit hours.
4. It is the function of a Supervisory Committee to have regular meetings, at least annually, with its graduate student. A meeting report, signed by all members of the Supervisory Committee and student, must be given to the Department. A copy will be sent to the graduate student and to the Dean of Graduate Studies.
5. The candidate will present a tentative outline of the proposed research to the Supervisory Committee, with a copy to the Department by the end of the second semester, and preferably prior to commencement of the research.
6. The student will present a research seminar to the Department, normally by the end of the second semester following admission, to describe the research topic being investigated and the methodologies to be employed. This seminar provides an opportunity for the student to receive constructive input from the broad biological community.
7. The candidate must present a thesis seminar of 30-40 minutes duration to the Department prior to submission of the thesis to the School of Graduate Studies. The candidate will be questioned by a panel approved by the Departmental Graduate Studies Committee, in consultation with the student's Supervisory Committee. All others in attendance will be invited to question the candidate before adjournment. Deficiencies noted at this stage should be carefully considered by the student and the Supervisory Committee prior to submission of the thesis for final examination.

   Under exceptional circumstances, this requirement may be waived by the Head of the Department (or delegate).
8. Each Master's candidate shall spend at least one semester in residence as a full-time student within the Department during the program. It is recommended that this semester be at the beginning of the program.

   Under exceptional circumstances, this requirement may be waived by the Head of the Department (or delegate).
9. If candidates, in the opinion of the Supervisor, Committee and Department, are not making satisfactory progress, they will be required to withdraw from the program.
10. Theses shall conform to **Theses and Reports** of the **General Regulations** of the School of Graduate Studies and to the regulations in the Departmental Guidelines.

19.7.2 Marine Biology

1. A program of study leading to a degree of Master of Science with a specialization in Marine Biology is governed by the above regulations.
2. Students will be required to take graduate courses comprising a minimum of 12 credit hours. These 12 credit hours must include Biological Oceanography 7531, and at least two of 6710, 7535, 7540, 7541, 7551, 7560, and 7561. The remaining credit hours may be selected from any other Biology graduate courses or relevant graduate courses in other Departments.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

6000 Research Topics in Microbiology
6100 Modern Problems in Botany
6110 Advanced Phycology
6120 Mycology
6350 Behavioural Ontogeny *(Cross-listed as Psychology 6350)*

6351 Behavioural Ecology and Sociobiology *(Cross-listed as Psychology 6351)*
6355 Field Course in Animal Behaviour *(Cross-listed as Psychology 6355)*
6400 Parasitic Protozoology
6410 Helminthology
6420 Parasitic Arthropods
6590 Molecular Biology I *(Cross-listed as Biochemistry 6590 and Medicine 6590)* Prerequisites: Biology 4241, Biochemistry 4100 (or equivalent)
6591 Molecular Biology II *(Cross-listed as Biochemistry 6591 and Medicine 6591)* Prerequisites: Biology 4241, Biochemistry 4100 (or equivalent)
6592 Bacterial Genetics *(Cross-listed as Biochemistry 6592)* Prerequisite: Biology 4241 or Biochemistry 4100 (or equivalent)
6593 Selected Readings in Molecular Biology *(Cross-listed as Biochemistry 6593)* Prerequisites or Co-requisites: Biology 6590, 6591/ Biochemistry 6590, 6591/Medicine 6590, 6591, (or equivalent)
6700 Biology of the Molluscs
6710 Marine Benthic Biology
6900 Entomology
6910 Applied Entomology
7110 Cellular Physiology and Cytology
7140 Physiology of Parasitism
7210 Arctic and Subarctic Biology
7220 Quantitative Methods in Biology
7250 Topics in Wildlife Biology
7270 Ecology of Newfoundland
7300 Ornithology
7520 Advances in Fish Biology
7530 The Molecular Basis of Development
7531 Biological Oceanography
7535 Research Methods in Marine Science
7540 Plankton Dynamics
7541 Physiological Ecology of Phytoplankton
7550 Fishery Biology
7551 Fisheries Resource Management
7560 Physiology of Marine Vertebrates
7561 Physiology of Marine Vertebrates
7570 Marine Benthic Biology
7600 Effect of Organic and Inorganic Pollutants on Biological Systems
7910 Community and Ecosystem Ecology
7920-7940 Special Topics in Biology

19.8 Chemistry

Associate Professor and Head of the Department
R. Davis

1. The degree of Master of Science in Chemistry is offered as full-time or part-time study.
   a. Preference for admission will be given to students with a B.Sc. (honours) degree in Chemistry from a recognized university.
   b. Students holding a B.Sc. degree in Chemistry from a university of recognized standing with a minimum overall average of 65% and minimum average of 65% in all Chemistry courses taken after the first year will be considered for admission to the Chemistry M.Sc. program. Students not admissible under 1.a. may, on the advice of the Supervisory Committee, be required to pass qualifying exams and/or supplementary undergraduate courses with a minimum B grade.
   c. Students with a first class B.Sc. in an area other than Chemistry will also be considered for admission. Students not acceptable under 1.a. or 1.b. who have a strong background in an appropriate area of specialization may, on the advice of the Supervisory Committee, be required to pass qualifying exams and/or supplementary undergraduate courses with a minimum B grade.
   d. Candidates are normally required to write American Chemical Society (ACS) placement test(s) in the first two weeks of the initial semester of registration in order to determine an appropriate course program.
2. Candidates will be assigned a Supervisory Committee consisting of the Supervisor and at least two other appropriate faculty members appointed by the Dean on the recommendation of the Chemistry Deputy Head (Graduate Studies).
3. The program of a candidate must be arranged by the Supervisor before the second semester of registration in consultation with the Supervisory Committee and the student. It is the responsibility of the Supervisory Committee to meet at least annually with the student, to provide guidance at all stages of the candidate's program, and, in consultation with the student, to prepare written annual progress reports for submission to the Dean of Graduate Studies.
4. Candidates are normally required to successfully complete Chemistry 6001 (Master's Seminar) and a minimum of 6 credit hours of graduate Chemistry courses with a minimum B grade. Additional program courses may be assigned by the Supervisory Committee.
5. Candidates are required to attend Departmental seminars.
6. Candidates must submit a thesis deemed acceptable to two examiners as described in the M.Sc. general regulations. An oral defence is not required.

Courses

6001 Master's Seminar
6004 Project Seminar
6110 Analytical Chemistry II
6150 Advanced Spectroscopic Techniques
6151 Analytical Separations and Organic Mass Spectrometry
6152 Electroanalytical Techniques
6153 Techniques in Sampling, Trace Analysis and Chemometrics
6154 Business Management and Good Laboratory Practice
6155 Computers in Instrumental Analysis and Basic Electronics (Same as Med 6070)
6160 Laboratory Projects in Sampling, Electroanalysis and Trace Analysis
6161 Laboratory Projects in Analytical Separations and Spectroscopic Techniques
6190-9 Selected Topics in Analytical Chemistry

6201 Bioinorganic Chemistry
6202 Main Group Chemistry
6204 Mechanisms in Catalysis
6205 Photochemistry of Transition Metal Complexes
6210 Organometallic Chemistry
6290-9 Selected Topics in Inorganic Chemistry
6300 Quantum Chemistry I
6301 Quantum Chemistry II
6302 Molecular Spectroscopy
6304 Computational Chemistry I
6310 Electronic Structure Theory
6323 Chemical Thermodynamics I
6324 Chemical Thermodynamics II
6350 Electrochemical Kinetics
6360 Solid State Chemistry
6380 Adsorption on Surfaces
6381 Surface and Interface Science
6390-9 Selected Topics in Physical Chemistry
6401 Organic Spectroscopic Analysis I
6402 Organic Spectroscopic Analysis II
6421 Natural Products Chemistry
6460 Organic Synthesis
6470 Physical Organic Chemistry
6490-9 Selected Topics in Organic Chemistry
6600 Applications of Inorganic and Organometallic Chemistry to Toxicology

19.8.1 Instrumental Analysis

1. **Program of Study**
   a. The Department of Chemistry in collaboration with other faculty in Science offers a course-based program in instrumental analysis leading to the degree of Master of Science. The program is available on a full-time or part time basis and will normally require four semesters of study. The program is designed for students who wish to pursue career opportunities in all areas of applied science which require in-depth knowledge and laboratory expertise in analytical instrumentation.
   b. The program will be administered by a Program Committee consisting of the Deputy Head (Graduate Studies) who will be chair, the Program Co-ordinator (Chemistry) and a third faculty member from another science department. The Program Committee will be responsible for overseeing that a level of standards be maintained.
   c. The Program Co-ordinator will be responsible for coordinating the course offerings and for soliciting student projects for the program to be approved by the Program Committee.
2. **Qualifications For Admission**
   Admission is limited and competitive. To be considered for admission, applicants shall normally hold a Bachelor's degree in Science (with at least a minor in Chemistry, and having completed Chemistry 4100 or equivalent) with at least a second class standing from an institution recognized by the Senate. The Program Committee will make recommendations on admission to the Dean of Graduate Studies.
3. **Program Requirements**
   a. All programs must be approved by the Program Committee and by the Dean of Graduate Studies. All **General Regulations** of the School of Graduate Studies shall apply to this degree.
   b. The program requires the completion of the 24 credit hours representing the eight required program courses, one project seminar, and a project report. Normally, completion of the program will require four semesters of study.
   c. A project seminar will be given to the Department of Chemistry at the end of the student's program.
   d. Students will be required to complete a research project, the scope of which will normally require no more than two semesters of full-time effort. The Project Report shall be evaluated according to the procedures outlined in **Theses and Reports**.
4. **Required Courses**
   6004 Project Seminar
   6150 Advanced Spectroscopic Techniques
   6151 Analytical Separations and Organic Mass Spectrometry
   6152 Electroanalytical Techniques
   6153 Techniques in Sampling, Trace Analysis and Chemometrics
   6154 Business Management and Good Laboratory Practice
   6155 Computers in Instrumental Analysis and Basic Electronics (Same as Medicine 6070)
   6160 Laboratory Projects in Sampling, Electroanalysis and Trace Analysis
   6161 Laboratory Projects in Analytical Separations and Spectroscopic Techniques

19.9 Cognitive and Behavioural Ecology Program

Administrative Committee
Dr. Rita Anderson (Psychology)
Dr. Edward Miller (Biology)
Dr. William Montevecchi (Psychology)
Dr. Paul Snelgrove (Biology)
Dr. Anne Storey (Psychology) - Chair
Dr. Ian Warkentin or Dr. David Brombeck (Grenfell College)
One Graduate Student from the Program

1. The Cognitive and Behavioural Ecology Program is interdisciplinary and designed to train students in research that integrates cognitive and behavioural studies at the ecological level. Molecular, developmental and evolutionary aspects of cognition and behaviour are also studies. Supervisors include faculty from the Departments of Biology, Psychology, and the Ocean Sciences Centre, the Faculty of Medicine, and the Environmental Science Program at Sir Wilfred Grenfell College, as well as adjunct faculty from the Canadian Wildlife Service, Department of Fisheries and Oceans, the Newfoundland and Labrador Forestry and Wildlife

Divisions and Parks Canada. The Departments of Biology and Psychology jointly offer the Master of Science and the Doctor of Philosophy degrees in Cognitive and Behavioural Ecology.

2. The Administrative Committee is responsible for the Program. Committee members are appointed by the Dean of Science, on the recommendation of the Chair of the Committee and of the Heads of Biology and Psychology. The Committee Chair is elected by the committee members and appointed by the Dean of Science. The Committee makes recommendations to the Dean of Graduate Studies concerning admissions and academic requirements. In consultation with supervisors, recommendations are made concerning course programs, financial support, thesis committees, comprehensive and thesis topics and examiners, students' annual progress. Upon program completion, the Committee certifies that all requirements for the appropriate degree have been met. The department of the supervisor ensures that adequate facilities are provided for each candidate. Students in the Cognitive and Behavioural Ecology Program are considered for teaching assistantships in the Psychology or Biology Departments.

19.9.1 Master of Science

1. Students normally take four courses (12 credit hours) in the first year. Students will be required to take Quantitative Methods in Biology (BIOL 7220) or Advanced Statistics in Psychology (6000) unless they have already passed an equivalent graduate or Honours course, Behavioural Ecology and Sociobiology (CABE 6351), Field Course in Animal Behaviour (CABE 7000) and one elective, in consultation with the Supervisor.
2. Upon completion but before submission of the thesis, the student is required to give a formal thesis presentation.
3. The student will be required to comply with all other regulations governing the graduate degree of Master of Science.

Courses
Biology 7220 Quantitative Methods in Biology
Cognitive and Behavioural Ecology 6240 Special Topics
Cognitive and Behavioural Ecology 6350 Behavioural Ontogeny
Cognitive and Behavioural Ecology 6351 Behavioural Ecology and Sociobiology
Cognitive and Behavioural Ecology 7000 Field and Lab Methods in Animal Behaviour and Behavioural Ecology
Psychology 6000 Advanced Statistics in Psychology

Table of Course Restrictions (Credit may be obtained for only one course from each of the pairs of courses listed in this table.)

Present Course	Former Course
CABE 6240	Biopsychology 6240
CABE 6350	Biopsychology 6350
CABE 6351	Biopsychology 6351
CABE 7000	Biopsychology 7000

19.10 Computational Science Program

Professor and Program Chair
G. Miminis

19.10.1 Administrative Committee

The Administrative Committee, appointed by the Dean of the School of Graduate Studies on the recommendation of the Dean of the Faculty of Science, consists of at least one representative of each participating academic unit, and one member external to the University.

19.10.2 Participating Departments and Organizations

This interdisciplinary program offers the Master of Science degree in both Computational Science and Computational Science (Co-operative). The departments of Chemistry, Computer Science, Earth Sciences, Mathematics and Statistics, Physics and Physical Oceanography and the Faculty of Engineering and Applied Science are participants in this program. Other departments and faculties may be involved, depending on the nature of the thesis or project. External organizations may provide placements for co-op students, jointly supervise students, share computing resources and participants in teaching courses.

19.10.3 Admission Criteria and Procedures

1. The criteria for acceptance of an applicant are: his or her anticipated successful and timely completion of the program, and the willingness of a participating faculty member to supervise the applicant.
2. The assessment of an applicant's likelihood of success will be carried out in a variety of ways. Students will normally hold a B.Sc. (Honours) degree, or equivalent, with a strong computational orientation. A general B.Sc. Degree, complemented by relevant experience, may also be acceptable. At the time of application, the student will be invited to demonstrate his or her background in the field. For example, the successful completion of a suitable B.Sc. which included a number of computer science courses or an undergraduate B.Sc. thesis which involved scientific computing would generally be acceptable, as would work experience which involved computing in a scientific environment.
3. Admission decisions will be made by the School of Graduate Studies on the recommendation of the chair of the Administrative Committee.

19.10.4 Program of Study

1. The Computational Science Program is designed to train students in the state-of-the-art numerical methods, high performance computer architectures, use of software development tools for parallel and vector computers, use of graphics and multimedia tools and application of these techniques to at least one scientific or engineering discipline.
2. The Program is offered in thesis and project (non-thesis) versions, with the option of a co-operative education program. It is intended that the overall level of student effort and performance required in each version will be comparable.
3. The work for the thesis or project will be carried out under the guidance of a supervisory committee appointed by the Dean of the School of Graduate Studies on the recommendation of the Administrative Committee. Before submission of the thesis or project report to the School of Graduate Studies for examination, each student must present a seminar suitable for an interdisciplinary

audience.

4. All student programs will contain a core of 9 credit hours in prescribed graduate courses. Additional courses, in an area of scientific specialization must also be completed. The course requirements for each student will be approved by the Administrative Committee on the recommendation of the student's supervisory committee, and will reflect the interdisciplinary nature of the program.
   a. The three core courses are: Computational Science 6910, Matrix Computations and Applications; Computational Science 6930, Numerical Linear Algebra for High-Performance Computers; Mathematics 6210, Numerical Solution of Differential Equations. The other courses will normally be taken from the list of approved courses.
   b. The thesis version requires the completion of 15 credit hours in graduate courses numbered 6000 or higher including 9 credit hours in prescribed core courses, and the submission of an acceptable thesis to the School of Graduate Studies for final examination. The thesis is to contain an original scholarly contribution. The two additional courses will normally be chosen from the list of approved courses and be in the same field as the thesis work.
   c. The project version requires the completion of 24 credit hours in graduate courses, including 9 credit hours in prescribed core courses, plus a project and an acceptable project report which must be submitted to the School of Graduate Studies for final examination. At least 9 credit hours of the additional 15 credit hours will normally be chosen from the list of approved courses. Nine of the 15 additional credit hours will normally be in the same field as the project. The project, which will include an in-depth written report, shall require the equivalent of at least one and no more than two semesters of full time work.

19.10.5 Co-operative Education Option

1. A co-operative education option will be available. Students in this option may follow the thesis or non-thesis version of the program. It is expected to take up to 24 months to complete. Students will be asked to indicate if they wish to follow this option at the time of application.
2. Students who are accepted into the M.Sc. program may be provisionally accepted into the co-op option. During their first two semesters, such students will interview with the Co-operative Education Services Centre and with prospective work term employers. Satisfactory performance in this phase of the program will lead to confirmation of acceptance into the co-op option, and allow the student to spend two of the next three terms working in industrial or government settings. Upon completion of each work term, the student must submit an acceptable work report.
3. Following the completion of the two work terms, each student must complete any remaining course requirements and project report or thesis. Assuming that prior written authorization of the employer and the supervisory committee was obtained and submitted to the School of Graduate Studies, students may include material from the work terms in their reports or theses. For students following the non-thesis version of the program, the two work-term reports may be combined into a single, integrated report for this purpose. All other students must write a thesis on a research project which may be based on research completed during the work terms.
4. Students who are accepted into the co-op option are not guaranteed placements. In the event that a student fails to obtain two semesters of placements, but successfully completes all other requirements of the degree, he or she will still be eligible for graduation, but without the designation of a co-op degree.

Courses

The core courses are:

Computational Science 6910. Matrix Computations and Applications
Computational Science 6930. Numerical Linear Algebra for High-Performance Computers
Mathematics 6210. Numerical Solution of Differential Equations

The following courses are identified as suitable for students in this program. Other courses may be permitted.

Department of Chemistry
6301 Quantum Chemistry II
6310 Electronic Structure Theory

Computational Science
601W Work Term 1
602W Work Term 2
6900-6909 Special Topics
6910 Matrix Computations and Applications
6920 Scientific Programming
6925 Tools of the Trade for Programming High Performance Computers
6930 Numerical Linear Algebra for High-Performance Computers
6940 Computer Based Research Tools and Applications

Department of Computer Science
6713 Software Engineering
6722 Advanced Computer Architectures
6728-6729 Special Topics in Computer Systems - Computer Networks
6731 Topics in Numerical Methods
6738-39 Special Topics in Numerical Methods
6752 Applications of Computer Graphics
6756 Digital Image Processing

Department of Earth Sciences
6994 Special Topics in Earth Sciences - Geophysical Inversion and Applications
6171 Advanced Exploration Seismology

Department of Mathematics and Statistics
6102-6119 Special Topics in Applied Mathematics
6201 Numerical Methods for Partial Differential Equations
6210 Numerical Solution of Differential Equations (required course for Computational Science)
6212 Numerical Methods for Initial Value Problems
6588 Selected Topics in Statistics and Probability - Generalized Additive Models with Applications in Scientific Visualization

Department of Physics and Physical Oceanography
6000 Condensed Matter Physics I
6200 Nonlinear Dynamics
6308 Ocean Dynamics I
6309 Ocean Dynamics II

6310 Physical Oceanography
6316 Ocean Measurements and Data Analysis
6317 Ocean Acoustics
6318 Numerical Modeling
6320 Turbulence
6321 Coastal Oceanography
6323 Stability Theory
6400 Statistical Mechanics
6850 Quantum Mechanics I

Faculty of Engineering and Applied Science

9015 Ocean Engineering Hydrodynamics
9052 Ice Properties and Mechanics
9501 Finite Element Analysis
9713 Stochastic Hydrology
9815 Electromagnetic Propogation
9821 Digital Signal Processing
9826 Advanced Control Systems
9861 High-Performance Computer Architecture
9865 Advanced Digital Systems
9869 Advanced Concurrent Programming
9871 Information Theory and Coding

19.11 Computer Science

Professor and Head of the Department

W. Banzhaf

The degrees of Master of Science and Doctor of Philosophy are offered in Computer Science.

19.11.1 Master of Science

1. Each candidate admitted into the program shall hold an Honours degree or equivalent in Computer Science or a closely related discipline. An applicant whose undergraduate degree was not in Computer Science, but who has obtained some academic standing in Computer Science, may be recommended for admission to the M.Sc. program and in addition, will be required to take a prescribed set of undergraduate Computer Science courses which may be taken in parallel with the regulation graduate courses. International applicants are strongly encouraged to submit results of the (general) Graduate Record Examination (GRE) Test.
2. Candidates are required to complete a minimum of 15 credit hours in graduate program courses. A candidate may take 3 credit hours in courses offered by another academic unit as one of the courses.
3. Each candidate is required to submit an acceptable thesis. The thesis project may involve a theoretical investigation and/or the development of an original, practical system. Each candidate is required to present a tentative outline of his/her proposed research to the Supervisor, with a copy to the Department Committee on Graduate Studies, by the end of his/her third semester in the program (sixth semester for part-time students).
4. Prior to submission of a thesis, normally in the last semester of the program, candidates are required to present a seminar on the thesis topic, methods employed and research results.
5. All candidates are expected to take an active part in seminars and other aspects of the academic life of the Department of Computer Science.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

Programming Languages

6711 Syntax and Semantics of Programming Languages
6712 Compiling Techniques
6713 Software Engineering
6714 Functional Programming
6715 Logic Programming
6716 Concurrent Programming
6718-6719 Special Topics in Programming Languages

Computer Systems

6720 Distributed and Parallel Computing
6721 Operating Systems Design
6722 Advanced Computer Architectures
6723 Microprocessor Systems
6724 VLSI Design (same as Engineering 9863)
6725 Computational Aspects of VLSI (same as Engineering 9864)
6726 Modelling and Analysis of Computing Systems
6727 Introduction to High Performance Computer Systems
6728-6729 Special Topics in Computer Systems - Computer Networks

Numerical Computations

6731 Topics in Numerical Methods
6732 Matrix Computations
6738-6739 Special Topics in Numerical Methods

Theoretical Aspects

6741 Advanced Automata Theory
6742 Theory of Databases
6743 Complexity of Computational Problems
6745 Special Topics - Advanced Computational Geometry
6748-6749 Special Topics in Theoretical Computer Science

Applications
6751 Database Technology and Information Retrieval
6752 Applications of Computer Graphics
6753 Artificial Intelligence
6754 Post-Genomic Computational Biology
6755 Knowledge-Based Systems
6756 Digital Image Processing
6758-6769 Special Topics in Computer Applications
6770-6790 Special Topics in Computer Science

19.12 Earth Sciences

Professor and Head of the Department
J. H. Hanchar

The degrees of Master of Science and Doctor of Philosophy are offered in Earth Sciences (Geology) and Earth Sciences (Geophysics) by full-time and part-time study.

19.12.1 Master of Science

1. Admission into a Master's degree program in Earth Sciences (Geology) and Earth Sciences (Geophysics) is restricted to candidates holding at least a B.Sc. degree with second class Honours. When circumstances warrant, this requirement may be waived by the School of Graduate Studies on the recommendation of the Head of the Department.
2. Each candidate will be assigned a multi-member supervisory committee. This committee shall consist of the Supervisor and at least one other member. Within two weeks of the first registration in the M.Sc. Degree program, a candidate will meet with his/her supervisory committee. Within six months, the student and the supervisory committee will agree on a written thesis proposal outlining the objectives, methods, timetable and funding for the project, and provide the proposal (signed by the student and supervisory committee) to the Head for inclusion in the student's file.
3. A candidate for the M.Sc. Degree must complete a minimum of 6 credit hours in program courses. The courses must be selected from the overview and general courses below or with the approval of the supervisory committee and Head of the Department, other graduate level courses including those offered by other departments. Depending on background and/or area of specialization, a candidate also may be required to complete additional courses in earth sciences or related subjects.
4. All course requirements should be completed within one year from the date of first registration in the M.Sc. degree program.
5. A candidate is required to give an oral presentation to the Department on the results of his/her research. This presentation must be given during the second year of the program.
6. The M.Sc. degree program will conclude with a thesis examination as prescribed in the General Regulations governing the M.Sc. degree.
7. The Supervisor and the Head of the Department may recommend to the Dean of Graduate Studies that a candidate who is not making satisfactory progress be required to withdraw from the program.

Courses

A selection of courses will be offered to meet the requirements of candidates as far as the resources of the Department will allow.

Overview Courses
7110 Physics of the Solid Earth
7120 Crustal Geophysics
7300 Changes in Global Paleoenvironment
7400 Tectonic Regimes
7410 Engineering & Environmental Geology
7500 Chemical Fluxes in the Earth
7810 Paleoecology (same as the former 6810. Credit may be obtained for only one of 7810 or 6810)

General Courses
6070 Quantitative Techniques in Mineralogy and Metamorphic Petrology
6141 Rotation of the Earth
6142 Theory of Global Geodynamics
6152 Paleomagnetism
6171 Advanced Exploration Seismology
6172 Borehole Seismic
6175 Gravity and Magnetic Methods
6177 Mathematical Formulations of Seismic Wave Phenomena
6210 Genesis of Mineral Deposits
6320 Marine Geology
6400 Flow and Transport in Fractured Rock
6410 Advanced Engineering and Environmental Geology
6420 Deformation Mechanisms
6500 Stable Isotope Geochemistry
6510 Trace Element Geochemistry
6520 Methods in Advanced Research in Geochemistry
6540 Radiogenic Isotope Geochemistry
6550 Biogeochemistry
6600 Petroleum Geology
6740 Modern and Ancient Sedimentary Environments
6750 Sequence Strategraphy
6820 Palynology and Paleobotany
6900-6999 Special Topics in Earth Sciences

19.13 Environmental Science Program

Professor and Chair, Board of Studies
Dr. Chris Parrish

19.13.1 Program of Study

1. The Environmental Science Program is an interdisciplinary graduate program involving the science-based departments of Memorial University of Newfoundland and along with the Environmental Engineering Program makes up Memorial's Environmental Studies Graduate Program. There are two Environmental Science Graduate degree streams, the Master of Science (M.Sc., Environmental Science) and the Master of Environmental Science (M.Env. Sci.).

   The program is available on a full-time or part-time basis. Admission is open to students with Science or Engineering backgrounds.
2. The program is offered by the Faculty of Science and is administered by a Board of Studies appointed by the Dean of Science.

19.13.2 Qualifications for Admission

Admission is limited and competitive. To be considered for admission applicants shall normally hold an Honours degree in Science with at least second class standing, or equivalent, or a Bachelor's degree in Engineering from an institution recognized by the Senate or shall have qualifications and/or environmental experience acceptable to the Dean of Graduate Studies and the Board of Studies. The Board of Studies will make recommendations on admission to the Dean of Graduate Studies.

19.13.3 Degree Requirements

1. To the extent that resources permit, individual programs will be developed to suit students' interests and needs. However all programs must be approved by the Board of Studies and by the Dean of Graduate Studies. All **General Regulations** of the School of Graduate Studies shall apply to these degrees.
2. **Master of Environmental Science**
   a. The Master of Environmental Science is a multidisciplinary course-based degree, focused on environmental issues. The degree program provides for both multidisciplinary courses and for courses focused on the student's specific area of interest.
   b. The degree program requires the completion of 27 credit hours.
      i. Students will be required to take a minimum of 15 credit hours in program courses, 9 credit hours of which must be ENVE/ENVS 6000, ENVS 6009 and ENVS 6010 and 6 credit hours from ENVE/ENVS 6001, 6002 and 6003.
      ii. Students will be required to take a minimum of 12 credit hours in elective courses approved by the Board of Studies, 9 credit hours of which will normally be selected from graduate courses offered by the Faculties of Science, and Engineering and Applied Science. Students are advised to consult with instructors and Faculties regarding necessary prerequisites and availability.
3. **Master of Science (Environmental Science)**
   a. The Master of Science (Environmental Science) is a research degree which includes a thesis and course work. The thesis research will focus on environmental topics relevant to the student's background, and will be supervised by appropriate faculty, normally in the Faculties of Science and/or Engineering and Applied Science. The course component has two aims: to broaden the students' understanding of environmental issues; and to provide further training in areas of research specialization for the thesis.
   b. Each student will have a Supervisory Committee normally consisting of a Supervisor and two others. The Supervisory Committee will be appointed by the Dean of Graduate Studies on the recommendation of the Board of Studies for Environmental Science.
   c. The program of each student will consist of a minimum of 15 credit hours in program courses which will include ENVE/ENVS 6000 and ENVS 6010. Of the 9 credit hours remaining in program courses, 3 credit hours will be from ENVE/ENVS 6001, 6002 and 6003 and the other credit hours will be related to the student's specialty and will normally be chosen from graduate courses offered by the Faculties of Science, and Engineering and Applied Science.
   d. All students will be required to submit a thesis embodying the results of systematic research on an approved topic. The thesis will be evaluated according to procedures outlined in General Regulation **Theses and Reports**.

Courses
ENVE/ENVS 6000 Environmental Science and Technology
ENVE/ENVS 6001 Earth and Ocean Systems
ENVE/ENVS 6002 Environmental Chemistry and Toxicology
ENVE/ENVS 6003 Applied Ecology
ENVS 6004 Environmental Pollution and Mitigation (Cross listed as Eng 9601)
ENVS 6005 Environmental Sampling and Pollutant Analysis (Cross listed as Eng 9603)
ENVS 6007 Environmental Risk Assessment (same as Eng 9609)
ENVS 6008 Air Pollution (same as Eng 9624)
ENVS 6009 Environmental Science Project
ENVS 6010 Environmental Seminar
ENVS 6201-6210 Special Topics in Environmental Science

19.14 Food Science

See under Biochemistry

19.15 Geography

Professor and Head of the Department
K. Storey

1. The degrees of Master of Arts and Master of Science are offered in Geography by full-time or part-time study.
2. Admission requirements are set forth in the **General Regulations** of the School of Graduate Studies and Degree Regulations for Master of Arts and Master of Science.
3. The deadline for submission of applications for admission is January 15. Candidates will normally commence their programs in the

Fall semester.

4. An applicant will be admitted to a graduate program only if a faculty member agrees to act as supervisor. A supervisory committee will be established after admission, normally consisting of the supervisor and two other individuals, one of whom will normally be a member of the Department.
5. Major research areas for graduate study at the master's level are cultural, historical, economic, urban, resource management, regional development, geomorphology, Quaternary environments, climatology and geographic information sciences.
6. Candidates will register for the M.A. program if their fields of interest lie in an area of Human Geography or for the M.Sc. if their fields of interest are in Physical Geography or Geographic Information Sciences.
7. It is expected that the program of study and research for the M.A. or M.Sc. will normally be completed in a maximum of two years of full-time work, or three years of part-time work.
8. Candidates must successfully complete a minimum of 12 credit hours of graduate program courses with a minimum grade of B in each. Geography 6000 will be a required course for all candidates who have not already completed an equivalent course at the Honours or post-graduate level.
9. Candidates whose undergraduate degree is not in geography will be required to complete some additional undergraduate program courses during their first year of study, in addition to the required graduate program courses. Normally four such undergraduate courses will be required, and a minimum grade of 70% must be obtained in each.
10. Each candidate will be required to present a seminar on their research to the Department.
11. Each candidate must submit a thesis based on their own original research. This thesis will be examined in accordance with the **General Regulations** of the School of Graduate Studies.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates as far as the resources of the Department will allow:

6000 Development of Geographical Thought
6100 Research Techniques in A Selected Field of Geography I
6101 Research Techniques in A Selected Field of Geography II
6120 Spatial Pattern Analysis and Computer Mapping
6150 Environmental Remote Sensing and Image Analysis
6200 Economic Geography I: Location Theory
6201 Economic Geography II: Regional Development
6202 Economic Geography III: Problems in Transportation
6203 Economic Geography IV: Land Use Pattern Analysis
6250 Conservation of Natural Resources
6300 Problems in Fisheries Geography
6301 Methodologies of Fisheries Geography
6400 Fluvial Geomorphology
6401 Glacial Geomorphology
6403 Hydrology
6410 Climatology
6420 Chronologies in Physical Geography
6430 Biogeography
6500 Cultural Geography
6510 Ethic Group Settlement in the New World
6550 Population
6600 Historical Geography
6700 Political Geography
6800 Urban Geography
6801 Spatial Aspects of Urbanization and City System Development
6802 Internal Structure of Cities
6820 Cartographic Design
6830 Cartographic Production
6900 Graduate Seminar in Regional Geography
6990-95 Special Topics in Geography

19.16 Geology

See Earth Sciences

19.17 Geophysics

See Earth Sciences

19.18 Instrumental Analysis

See Chemistry

19.19 Mathematics and Statistics

Head of the Department
C. Radford

The degrees of Master of Applied Statistics (see appropriate calendar entry), Master of Science and Doctor of Philosophy are offered in the Department of Mathematics and Statistics. The Masters' degrees are offered by full-time and part-time studies.

Specific Requirements for the M.Sc. in Mathematics

Every candidate for the M.Sc. in Mathematics is required to take at least 18 credit hours in graduate courses, at most 3 credit hours of which may be from seminar courses. At least 9 credit hours must be from courses selected from the list below with at least 3 credit hours in each of three of the indicated subject areas. A thesis is required.

Algebra: 6320, 6321
Analysis: 6310, 6311, 6312

Applied Mathematics: 6201 or 6212, 6100
Combinatorics: 6340, 6341, 6342
Topology: 6300 or 6301, 6332

Specific Requirements for the M.Sc. in Statistics

Every candidate for the M.Sc. in Statistics is required to take at least 18 credit hours in graduate courses, at most 3 credit hours of which may be from seminar courses. A thesis is required.

Table of Credit Restrictions for Present Mathematics Courses with Former Mathematics Courses

Credit may be obtained for only one course from each of the pairs listed in this table.

Present Course	Former Course	Present Course	Former Course
6323	6030	6212	6080
6321	6032	6310	6130
6322	6035	6330	6200
6340	6040	6331	6210
6341	6041	6332	6350
6342	6042	6312	6500

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

Mathematics

6100 Dynamical Systems
6101 Modern Perturbation Theory
6102-6119 Special Topics in Applied Mathematics
6120 The Theoretical Fluid Dynamics
6121 Functional Differential Equations
6201 Numerical Methods for Partial Differential Equations
6202-6209 Special Topics in Numerical Analysis
6210 Numerical Solution of Differential Equations (for Computational Science students only - required core course)
6212 Numerical Methods for Initial Value Problems
6300 Algebraic Topology I (Homology Theory)
6301 Algebraic Topology II (Homotopy Theory)
6302 Algebraic Topology III (Theory of Fibre Bundles)
6304-6309 Special Topics in Topology
6310 Functional Analysis
6311 Complex Analysis
6312 Measure Theory
6313-6319 Special Topics in Analysis
6320 Group Theory
6321 Ring Theory
6322 Nonassociative Algebra
6323 Homological Algebra
6324-6329 Special Topics in Algebra
6330 Analytic Number Theory
6331 Algebraic Number Theory
6332 Point Set Topology
6340 Graph Theory
6341 Combinatorial Design Theory
6342 Advanced Enumeration
6343-6349 Special Topics in Combinatorics
6910 Topology Seminar
6940 Analysis Seminar
6950 Algebra Seminar

Statistics

6503 Stochastic Processes
6505 Survival Analysis
6510 Mathematical Statistics
6520 Linear Models
6530 Generalized Linear Longitudinal Mixed Models
6540 Time Series Analysis
6545 Statistical Computing
6550 Nonparametric Statistics
6560 Continuous Multivariate Analysis
6561 Categorical Data Analysis
6570-6589 Selected Topics in Statistics and Probability
6590 A Course in Statistical Consulting
6930 Statistics Seminar

19.20 Physics and Physical Oceanography

Professor and Head of the Department

B. de Young

Programs leading to the degree of Master of Science in Physics and in Physical Oceanography are offered to both full and part-time

students. Because Oceanography is multidisciplinary in nature, undergraduate students who plan to undertake Physical Oceanography studies are urged to consult the faculty member in charge of Physical Oceanography programs at their earliest opportunity, in order to ensure the appropriateness of their undergraduate course selections. The degree of Doctor of Philosophy in Physics is offered through both full-time and part-time study in Atomic and Molecular Physics, Condensed Matter Physics, and Physical Oceanography. The following Departmental Regulations are supplementary to the General Regulations governing the M.Sc. and Ph.D. degrees. A thorough familiarity with the latter Regulations should be regarded as the prerequisite to further reading in this section.

The Department of Physics and Physical Oceanography compiles, and regularly reviews, a brochure which contains reasonably detailed descriptions of currently active research projects, as well as a comprehensive listing of recent research publications, and other material which may be of interest to prospective graduate students.

19.20.1 Master of Science

1. Admission to a M.Sc. program in the Department of Physics and Physical Oceanography is normally restricted to candidates holding an Honours B.Sc. degree in Physics. However, depending on background and area of specialization and with particular reference to Physical Oceanography, other Baccalaureate degrees in science, applied science or mathematics, may be accepted.
2. A program of study for the M.Sc. degree in Physics or Physical Oceanography shall normally include a minimum of 12 graduate credit hours. However, depending on the student's background and area of specialization, more or fewer graduate and/or undergraduate courses may be required.
3. Except with the special permission of the Department and the approval of the Dean of Graduate Studies, a candidate may not take any courses in addition to those approved for his/her M.Sc. program.
4. Before submission of the thesis to the School of Graduate Studies for examination, the student must present a seminar on the topic of his/her thesis research.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

6000 Condensed Matter Physics I
6001 Condensed Matter Physics II
6002 Superconductivity
6003 Path Integral Techniques in Condensed Matter Physics
6010-19 Special Topics in Condensed Matter Physics
6040 Biophysics
6060-69 Special Topics in Interdisciplinary Areas
6200 Nonlinear Dynamics
6308 Ocean Dynamics I
6309 Ocean Dynamics II
6310 Physical Oceanography
6313 Physical Fluid Dynamics
6315 Polar Oceanography
6316 Ocean Measurements and Data Analysis
6317 Ocean Acoustics
6318 Numerical Modeling
6319 Climate Dynamics
6320 Turbulence
6321 Coastal Oceanography
6322 Stratified Fluids
6323 Stability Theory
6324 Models in Ocean Ecology
6360-69 (excluding 6363) Special Topics in Physical Oceanography
6363 Laboratory Experiments in Geophysical Fluid Dynamics
6400 Statistical Mechanics
6402 Theory of Phase Transitions
6403 Stochastic Processes, Time-Dependent and Non-equilibrium Statistical Mechanics
6502 Electrodynamics
6720 Theory of Molecules
6721 Molecular Spectroscopy
6722 Light Scattering Spectroscopy
6730 Molecular Theory of Liquids and Compressed Gases
6740 Physics of Atomic Collisions
6760-69 Special Topics in Atomic and Molecular Physics
6800 Group Theory
6810-19 Special Topics in Theoretical and Mathematical Physics
6850 Quantum Mechanics I
6851 Quantum Mechanics II
6910-19 Special Topics in Experimental and Applied Physics

Table of Course Restrictions - Physics and Physical Oceanography

Credit May Be Obtained for Only One Course From Each of the Pairs Of Courses Listed in This Table

Present Course	Former Course	Present Course	Former Course
6001	6051	6321	6303
6002	6822	6321	6304
6003	6820	6323	6303
6200	6821	6402	6401
6308	6312	6403	6401
6309	6311	6403	6824
6313	6301	6502	6500
6316	6302	6502	6501
6317	6823	6722	6790

Members of the department carry out research in several areas of experimental and theoretical physics, including atomic and molecular physics, condensed matter physics, physical oceanography, theoretical geophysics and applied nuclear physics. In atomic and molecular physics, there are experimental programs in collision-induced infrared absorption spectroscopy, electron emission spectroscopy of simple molecules, molecular ions and free radicals, laser-induced fluorescence spectroscopy, and Raman spectroscopy, and theoretical work on atomic and molecular collisions. The work in condensed matter physics includes experimental programs in solid state nuclear magnetic resonance on systems of biophysical interest, Raman spectroscopy of lipid bilayers and membranes, studies of phase transitions using Brillouin and Raman spectroscopy, studies of instabilities and pattern formation in simple fluid dynamical systems, and spectroscopic studies of molecular crystals. Theoretical condensed matter physics research involves studies of magnetism, superconductivity, and the statistical mechanics of polymers and lipid bilayers. The physical oceanography group carries out field and laboratory research on several projects which take advantage of Newfoundland's unique oceanographic environment, using acoustic and other remote sensing techniques. These include studies of circulation on the Newfoundland and Labrador shelves, Labrador current dynamics, fjord dynamics, submarine canyons and sediment transport dynamics in the nearshore zone and on the shelf. Theoretical oceanographic studies involve the modelling of ocean circulation, gravity wave phenomena and other aspects of ocean dynamics. Research in theoretical geophysics is concentrated on whole-Earth dynamics, with special emphasis on the physics of the liquid core (the Earth's "third ocean") as inferred from its wave spectrum and the associated momentum transfer to the deformable solid parts of the Earth. In nuclear physics, research is done on the atmospheric concentrations of radioactive elements and on dosimetry for medical applications.

Note: *For Geophysics, see EARTH SCIENCES*

19.21 Psychology

Professor and Head of the Department

I. Neath

The degree of Master of Science is offered in Experimental Psychology. The degree of Doctor of Philosophy is offered in Experimental Psychology. Interested students may wish to consult the sections in the Calendar describing the Master of Applied Social Psychology (Cooperative) program and the Master of Science and Doctor of Philosophy in Cognitive and Behavioural Ecology programs.

Applications

All applicants are required to submit results from the General section of the Graduate Record Examinations.

At least one letter of reference should come from someone who is familiar with the applicant's research capability.

Applicants applying to programs in Cognitive, Perception and Animal Learning are required to submit with their applications an example of their academic writing. This could include, but is not limited to, papers submitted in class, Honour's thesis, etc.

19.21.1 Master of Science

A candidate may be accepted into a program leading to the M.Sc. in Experimental Psychology.

Experimental Psychology

The areas of specialization offered are: Animal Behaviour (see Cognitive and Behavioural Ecology Program), Behavioural Neuroscience, Cognitive Psychology, Developmental Psychology, and Social Psychology.

Candidates in Behavioural Neuroscience shall normally complete 12 credit hours. Candidates in other areas of Experimental Psychology shall normally complete 18 credit hours. At the beginning of his/her program, the student will normally be required to take Advanced Statistics in Psychology (6000) unless he or she has already passed an equivalent Honours or graduate course. Other courses in statistics (6001) may be required on an individual student's program. The courses which make up the balance of the individual's program will be chosen to best suit the area of specialization. In addition, every candidate shall submit an original thesis based upon an approved experimental research topic.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

6000 Advanced Statistics in Psychology
6001 Research Design
6100-6114 Special Topics in Experimental Psychology
6200 Learning I
6201 Learning II
6203 Behavioural Pharmacology
6210 Behavioural Analysis of Toxins
6350 Behavioural Ontogency *(Cross-listed as Biology 6350*)
6351 Behavioural Ecology and Sociobiology *(Cross-listed as Biology 6351)*
6355 Field Course in Animal Behaviour *(Cross-listed as Biology 6355)*

6400 Theory and Methods in Social Psychology
6401 Social Cognition
6402 Group Processes
6403 Advanced Methods in Applied Social Psychological Research
6404 Project in Applied Social Psychology (*Note: This course is open only to students in the Master of Applied Social Psychology)*
6500 Developmental Psychology I
6501 Developmental Psychology II
6502 Developmental Changes During Old Age
6700 Perception
6710 Human Information Processing
6720 Human Memory
6800 Behavioural Neuroscience I
6801 Behavioural Neuroscience II
6810 Psychometrics
6910 Personality

20 Regulations Governing the Degree of Master of Science in Kinesiology

Professor and Director of the School
M. Bluechardt

The degree of Master of Science in Kinesiology is offered to qualified full-time and part-time students by the School of Human Kinetics and Recreation. The **General Regulations** of the School of Graduate Studies of Memorial University of Newfoundland outlined in the current Calendar, and the Degree Regulations of the School of Human Kinetics and Recreation outlined below will apply to the Master of Science in Kinesiology program.

20.1 Qualifications for Admission

1. The admission requirements for the Master of Science in Kinesiology are as given under the **General Regulations** of the School of Graduate Studies. Admission is limited and competitive. Preference for admission may be given to students with undergraduate degrees in relevant disciplines, with a minimum overall B average. Applications submitted through the School of Graduate Studies will be evaluated by the Graduate Studies Committee of the School of Human Kinetics and Recreation. Admission of a candidate to the program shall be made by the Dean of Graduate Studies.
2. Only in exceptional circumstances, and only on the recommendation of the Director of the School of Human Kinetics and Recreation, shall the Dean of Graduate Studies consider applicants who do not meet the requirements above.

20.2 Program and Degree Requirements

1. The degree of Master of Science in Kinesiology is offered in the areas of Exercise and Work Physiology, Biomechanics/Ergonomics and Sport Psychology.
2. The program of a candidate for the Master of Science in Kinesiology shall be the responsibility of the Supervisory Committee, composed of the Supervisor and at least one other faculty member recommended with the concurrence of the Supervisor by the Director of the School, or delegate.
3. Candidates for the Master of Science in Kinesiology shall be required to complete a minimum of 15 credit hours plus a thesis. HKR 6000 is normally required for all candidates. The remaining course requirements will be selected, in agreement with the Supervisory Committee, to reflect the kinesiology areas of specializations offered within the School.
4. It is the responsibility of the student to arrange regular meetings with their supervisory committee. An annual report, prepared by the Supervisor and signed by all members of the Supervisory Committee and the student, is submitted to the Director of the School of Human Kinetics and Recreation (or delegate) as required by the School of Graduate Studies.
5. Depending on the background of the candidate or his/her area of intended specialization, a candidate's program may be modified. Such modifications may include a reduction in course requirements where a student demonstrates that he or she brings graduate level competency to their program in specific areas, or may include additional graduate or undergraduate courses, as specified by the student's Supervisory Committee. A minimum of three courses or 9 credit hours completed in the School of Human Kinetics and Recreation is mandatory.
6. A student completing a Master of Science in Kinesiology will be required to present a thesis proposal for his or her proposed thesis normally by the end of the third semester of study. Candidates will be questioned on their proposal by a three-member panel appointed by the Director in consultation with the Supervisory Committee. Any deficiencies noted during the proposal should be carefully considered by the student and the Supervisory Committee prior to approval of the thesis topic.
7. All graduate students are expected to attend and participate in the School of Human Kinetics and Recreation seminars and thesis proposal presentations.
8. In conjunction and collaboration with other Faculties and Schools of Memorial University of Newfoundland, students may pursue their special interests through electives from departments/schools outside the School of Human Kinetics and Recreation. These courses must be approved by the Graduate Studies Committee and the Dean of Graduate Studies in the preceding semester.

20.3 Courses

1. In order to continue as a candidate for a Master of Science in Kinesiology degree, a candidate who receives a final grade of "C" or less in a program course must repeat that course and obtain a minimum grade of "B". In the case of an elective course a suitable replacement course, acceptable to the Graduate Studies Committee of the School of Human Kinetics and Recreation, may be substituted for the failed course. Only one such repetition/replacement shall be permitted in the candidate's graduate program. Should a grade of lower than "B" be obtained in the repeated course/replacement course, or any other program course, the candidate shall be required to withdraw from the program.
2. When the Graduate Studies Committee of the School of Human Kinetics and Recreation has determined, through consultation with the candidate, the instructors of graduate courses, and the program advisor or thesis supervisor that the candidate's work has fallen below satisfactory level, it may request that the Director of the School of Human Kinetics and Recreation recommend to the Dean of Graduate Studies that the candidate's program be terminated.
3. Candidates may apply for transfer course credits. All course transfers require the approval of the Dean of Graduate Studies, on the

recommendation of the Director of the School of Human Kinetics and Recreation, and are subject to General Regulation **Program Requirements, Transfer of Course Credits** of the School of Graduate Studies.

20.4 Period of Study

The period of study for a graduate program shall not normally exceed seven years beyond first registration.

1. A candidate in full-time attendance may register for a maximum of 12 credit hours in any regular semester and a maximum of 6 credit hours in intersession or summer session.
2. A candidate in part-time attendance may register for a maximum of 3 credit hours in any semester, including intersession or summer session.

20.5 Thesis

The School of Graduate Studies General Regulation describes the requirements in **Theses and Reports**.

Courses

6000 Quantitative methods in physical education
6001 Qualitative research methods in physical education
6130 Computer applications in physical education
6201 Foundations of sport psychology and mental training techniques
6202 Intervention and enhancement techniques in mental training consultation
6203 Sport psychology consulting
6310 Exercise Physiology I
6320 Exercise Physiology II
6340 Occupational biomechanics
6610-15 Individual reading and research in special areas

21 Regulations Governing the Degree of Master of Science in Medicine

Professor of Medicine and Dean
J Rourke

Professor and Associate Dean
P.F. Moody-Corbett

There are eight program areas in the Faculty of Medicine: Applied Health Services Research, Cancer Research, Cardiovascular and Renal Science, Clinical Epidemiology, Community Health, Human Genetics, Immunology and Infectious Diseases, and Neurosciences. Each program area has a Co-ordinator who is responsible to communicate the interests of the programs to the Faculty of Medicine Graduate Studies Committee and participates in the admission of graduate students into the program in Medicine.

The degree of Master of Science in Medicine (in all of the programs excluding the Applied Health Services Research Program) is offered in the Faculty of Medicine to full-time and part-time students. The Applied Health Services Research program is offered by full-time study only. The graduate diploma programs in Community Health and Clinical Epidemiology are offered by part-time study only.

The following regulations will apply in conjunction with the **General Regulations** of the School of Graduate Studies.

21.1 Master of Science in Medicine

21.1.1 Qualification for Admission

The admission requirements for each of the M.Sc. Program areas in Medicine are described under Programs of Study.

21.1.2 General Program Requirements

1. The program of study for the M.Sc. in Medicine degree is the responsibility of the supervisory committee composed of a supervisor and at least two other faculty members.
2. It is the responsibility of the supervisory committee to meet regularly (at least annually) with the student and to provide guidance at all stages of the candidate's program. An annual report prepared by the supervisor and signed by the student and all members of the committee is required to be submitted to the Assistant Dean of Research and Graduate Studies (Medicine).
3. Course requirements are set by each of the program areas and are described under **Programs of Study**. In addition, all students will be required to complete GRAD 9991 (Graduate Research Integrity Program).
4. In addition to courses and research, graduate students are expected to participate in Faculty of Medicine seminars and journal clubs.

21.1.3 Programs of Study

1. **Applied Health Services Research**

   The Applied Health Services Research program is jointly offered by the University of New Brunswick (UNB), Memorial University of Newfoundland, and Dalhousie University (Dal). Students will be educated in an interdisciplinary environment and will develop a substantive understanding of: the Canadian health system, the conduct of ethical research, critical appraisal, appropriateness of research design for particular policy questions and determinants of health models. They will also gain first-hand exposure in a decision-making/policy environment. Access to specific computer software and the Internet is required and will be the responsibility of each student.

   a. Administration

      i. An Executive Committee, consisting of the Deans of Graduate Studies, the Program Directors and student representation from UNB, Memorial University of Newfoundland, and Dal will oversee the academic program across the Universities and ensure program integrity.

      ii. A Program Management Committee, consisting of the Program Directors and Site Co-ordinators from UNB, Memorial University of Newfoundland, and Dal will oversee the operation of the program.

      iii. At Memorial University of Newfoundland, the program shall be administered through the Office of Research and Graduate Studies (Faculty of Medicine) by a Program Director who shall be appointed by the Dean of Graduate Studies on the recommendation of the Dean, Faculty of Medicine.

b. Qualifications for Admission

i. Admission is limited and competitive. To be considered for admission to the program, an applicant shall normally have a bachelor's degree with a minimum B+ average or GPA of 3.3 from an institution recognized by the Senate. Normally, students should have completed an undergraduate course in statistics.

ii. Students are normally admitted to the Fall semester (September). The deadline for receipt of applications is April 1. Late applications will only be considered if admissions decisions have not yet been made.

c. Program Requirements

i. All students will be required to complete eight core courses, the Graduate Research Integrity Program, a four-month residency placement and a thesis. In addition, candidates must participate in three conference workshops each of a week's duration.

ii. Prior to submission of the thesis to the School of Graduate Studies for examination (see General Regulation **Theses and Reports**), candidates shall present an open seminar.

iii. Outline of program of study:

Semester 1 - Fall	Semester 2 - Winter	Semester 3 - Spring	Semester 4 - Fall	Semester 5&6 - Winter & Spring
MED 6282 MED 6290 MED 6284 GRAD 9991 Conference 1 Theme: Research Issues and Critical Appraisal	MED 6286 MED 6288 MED 6292 Conference 2 Theme: Policy and Decision Making	Residency Placement: All candidates are required to complete a 16-week residency placement. The residency placement is negotiated by the Program Director in consultation with the student and governed by the agreements outlined in the Atlantic Regional Training Centre residency manual.	MED 6293 MED 6294 Conference 3 Theme: Communication and Dissemination	Thesis, including public presentation

2. **Cancer Research**

The graduate program in cancer research offers study in fundamental cell and molecular biological areas including viral oncogenesis, growth factors and oncogenes in developmental models, programmed cell death and drug resistance.

a. Qualifications for Admission

The admission requirements are as given under the General Regulations governing Master's degrees. All courses in the program have as a prerequisite, successful completion of an advanced, upper-level biochemistry, biology or medical course, with an emphasis on molecular biology or medicine.

b. Program Requirements

i. All students are required to attend, for credit, and participate in the Cancer Research Journal Club (Cancer Seminars, MED 6400-6403) for a minimum of four semesters. One other graduate course (chosen from MED 6580, 6590, 6591, 6340, 6341 or 6342) is required for M.Sc. Medicine students although other courses may be required in individual cases.

ii. The M.Sc. in Medicine requires the completion of a research project and a written thesis.

3. **Cardiovascular and Renal Science**

The graduate program in cardiovascular and renal science enables students to pursue research and academic studies in selected topics including hypertension and stroke, neural control of vasculature, heart and blood pressure. The faculty participating in the program consist of basic cardiovascular scientists and renal clinicians. Teaching within the program is integrated with the M.D. program.

a. Qualifications for Admission

The admission requirements are as given under the General Regulations governing Master's degrees.

b. Program Requirements

i. Students will be required to take a minimum of two graduate courses. Basic Cardiovascular and Renal Physiology (MED 6140) is required and must be taken in the first year of the program. Students will chose a second course from MED 6141, 6142, 6143 or 6144.

ii. The M.Sc. in Medicine requires the completion of a research project and a written thesis.

4. **Clinical Epidemiology**

The program in clinical epidemiology is aimed at university graduates intending a career in health services, faculty members seeking advanced training in clinical epidemiology, medical doctors and health care professionals interested in health care delivery research.

a. Qualifications for Admission

The admission requirements are as given under the General Regulations governing Master's degrees. In exceptional circumstances, a professional equivalent qualification will be considered for admission.

b. Program Requirements

i. Students are required to take four courses: Biostatistics I (MED 6200), Basic Clinical Epidemiology (MED 6250), Clinical Research Design (MED 6255) and Applied Data Analysis for Epidemiology (MED 6260). In addition students are required to attend scheduled epidemiology seminars.

ii. The M.Sc. in Medicine requires the completion of a research project and a written thesis.

5. **Community Health**

The graduate program in community health enables students to pursue research and academic studies in selected topics including community health, epidemiology, socio-behavioural health, biostatistics, health services utilization, health policy and health promotion.

a. Qualifications for Admission

The admission requirements are as given under the General Regulations governing Master's degrees. In exceptional circumstances, a professional equivalent qualification will be considered. Students are expected to have successfully completed at least one basic university-level statistics course.

b. Program Requirements

i. Students are required to take four core courses: Introduction to Community Health (MED 6220), Biostatistics I (MED 6200), Epidemiology I (MED 6270) and Community Health Research Methods (MED 6280) and to attend, for credit, and participate in four semester-length seminar courses (MED 6400-6403).

ii. The M.Sc. in Medicine requires the completion of a research project and a written thesis.

6. **Human Genetics**

The graduate program in human genetics will enable students to pursue academic studies and research in a number of areas of genetics including cancer genetics, genetic epidemiology, gene mapping, medical genetics, birth defects and population genetics. Faculty members from all three divisions of the Faculty of Medicine (Basic Sciences, Community Health and Clinical Sciences) participate in the program.

a. Qualifications for Admission

The admission requirements are as given under the General Regulations governing Master's degrees. Applicants with backgrounds in the fields of genetics, biochemistry and biology are preferred.

b. Program Requirements

i. Students will be required to complete a minimum of two graduate courses. Within the Human Genetics program the following courses are offered: Human Molecular Genetics (MED 6393), Human Population Genetics (MED 6390), Applied Human Genetics (MED 6392) and Selected Topics in Human Genetics (MED 6391). In addition, there are a number of courses in other graduate programs which could be suitable for some students in this program, including Epidemiology I (MED 6270), Molecular Biology of Cancer (MED 6580), Molecular Biology I (MED 6590) and Molecular Biology II (MED 6591). Course selection for each student is determined by the supervisory committee in consultation with the student and is based on the area of study and past course credits.

ii. Students are expected to participate in the activities of the genetics group. These include the weekly Journal Club/Research Discussion Group and the Genetics Seminar Series.

iii. The M.Sc. in Medicine requires the completion of a research project and a written thesis.

7. **Immunology and Infectious Diseases**

The immunology group has an interdisciplinary character and consists of faculty from biomedical science, clinical sciences and oncology research. The graduate programs are designed to provide individualized training oriented towards basic research and a solid scientific background in the discipline of immunology.

a. Qualifications for Admission

The admission requirements are as given under the General Regulations governing Master's degrees. A Bachelor of Science degree or equivalent is required.

b. Program Requirements

i. Students in the program are required to take three core courses: Immunology I (MED 6127), Immunology II (MED 6128) and Advanced Immunological Methods (MED 6130). Some students may be required to take additional courses depending upon their thesis topic. The immunology course for pharmacy students (PHAR 4105) is a required course for students who have not previously taken an undergraduate immunology course. All students are required to attend, for credit, and participate in the Immunology Journal Club (MED 6400-6403) for a minimum of three semesters.

ii. The M.Sc. in Medicine requires the completion of a research project and a written thesis.

8. **Neurosciences**

The Neuroscience Program offers graduate studies in an interdisciplinary setting including faculty from biomedical science within the Faculty of Medicine and Department of Psychology in the Faculty of Science. Graduate students may pursue research in a number of specialty areas including the physiological basis of learning and memory, stroke and neuroplasticity, neuroregeneration, signal transduction mechanisms, neuronal circuitry and membrane physiology. The Neuroscience Program is a Chapter of the Society for Neuroscience.

a. Qualifications for Admission

The admission requirements are as given under the General Regulations governing Master's degrees. It is expected that the students will have had courses in biochemistry, biology and/or psychology with some exposure to basic university-level statistics.

b. Program Requirements

i. Students in the program are required to take two core courses in Neuroscience: Cellular Neuroscience (MED 6197) and Systems Neuroscience (MED 6196). Some students may be required to take additional course work depending on their background qualifications.

ii. Students are expected to attend and participate in the activities of the neuroscience group including the weekly seminar and journal club.

iii. The M.Sc. in Medicine requires the completion of a research project and a written thesis.

21.2 Graduate Diploma

The Faculty of Medicine offers a Graduate Diploma providing an opportunity for professionals and individuals within the health sector to obtain or upgrade their training in Community Health or Clinical Epidemiology.

21.2.1 Qualifications for Admission

To be admitted to the graduate diploma program a student must be eligible to register as a graduate student, as given under the General Regulations governing M.Sc. degrees. In special circumstances, and upon the recommendation of the Community Health or Clinical Epidemiology Co-ordinator, a suitable combination of training and professional experience relevant to the program may be acceptable for admission.

21.2.2 Program Requirements

A Graduate Diploma in Community Health requires successful completion of Medicine 6200, 6220 and 6270.

A Graduate Diploma in Clinical Epidemiology requires successful completion of Medicine 6200, 6250 and 6255.

Courses

6070 Seminars in Physiological Instrumentation
6090-6119 Special Topics
6127 Immunology I
6128 Immunology II (Prerequisite Medicine 6127)
6130 Advanced Immunological Methods
6131-6139 Special Topics
6140 Basic Cardiovascular and Renal Physiology
6141 Cardiovascular/Renal Techniques
6142 Selected Topics in Cardiovascular and Renal Physiology
6143 Cardiovascular Anatomy
6144 Current Concepts in Cardiovascular and Renal Pathophysiology
6180 Structure, Function and Pharmacology of Muscle
6190 General Pharmacology
6192 Pharmacology of Receptors and Receptor Effector Coupling Processes
6193 Advanced Topics in Neuroscience
6194 Advanced Topics in Physiology
6195 Neurobiology of Nervous System Diseases
6196 Systems Neuroscience
6197 Cellular Neuroscience
6200 Biostatistics I
6201 Elementary Statistics (one-credit hour)
6202 Univariate Inference (Prerequisite: 6201) (one-credit hour)
6203 Multivariate Inference (Prerequisite: 6202) (one-credit hour)
6220 Introduction to Community Health
6221 Concepts of Public Health (one-credit hour)
6222 Health Protection and Disease Prevention (Prerequisite: 6221) (one-credit hour)
6223 Health Promotion (Prerequisite: 6222) (one-credit hour)
6250 Basic Clinical Epidemiology
6251 Introduction to Clinical Epidemiology (one-credit hour)
6252 Critical Appraisal (Prerequisite: 6251) (one-credit hour)
6253 Clinical Measurement (Prerequisite: 6252) (one-credit hour)
6255 Clinical Research Design
6260 Applied Data Analysis for Clinical Epidemiology
6270 Epidemiology I
6271 Principles of Epidemiology (one-credit hour)
6272 Observational Study Design (Prerequisite: 6271) (one-credit hour)
6273 Survey Methodology (Prerequisite: 6272) (one-credit hour)
6274 Chronic Disease Epidemiology
6275 Epidemiology II
6280 Community Health Research Methods
6282 Canadian Health Care System
6284 Research and Evaluation Design and Methods
6286 Ethical Foundations of Applied Health Research
6288 Policy and Decision Making
6290 Determinants of Health: Healthy Public Policy
6292 Qualitative & Quantitative Methods for Health Services Research
6293 Knowledge Transfer and Research Uptake
6294 Advanced Qualitative Methods
6295 Advanced Quantitative Methods
6296 Residency
6340 Research Topics in Cancer I
6341 Research Topics in Cancer II
6342 Basic Principles of the Pathology of Cancer
6390 Human Population Genetics
6391 Selected Topics in Human Genetics
6392 Applied Human Genetics
6393 Human Molecular Genetics
6394 Cancer Genetics
6400 Research Seminars for M.Sc Students I (one-credit hour)
6401 Research Seminars for M.Sc Students II (one-credit hour)
6402 Research Seminars for M.Sc Students III (one-credit hour)
6403 Research Seminars for M.Sc. Students IV (one-credit hour)
6410 Research Seminars for Ph.D. Students I (one-credit hour)
6411 Research Seminars for Ph.D. Students II (one-credit hour)
6412 Research Seminars for Ph.D. Students III (one-credit hour)
6413 Research Seminars for Ph.D. Students IV (one-credit hour)
6420 Medical Science/Social Responsibility in Health Care: Aspects of Medical History (Same as History 6125)
6580 Molecular Biology of Cancer (Prerequisites: Biology 4241, Biochemistry 4100 [or equivalent])
6590 Molecular Biology I - *Cross listed as Biology 6590 and Biochemistry 6590* (Prerequisites: Biology 4241, Biochemistry 4100 [or equivalent])
6591 Molecular Biology II - *Cross listed as Biology 6591 and Biochemistry 6591* (Prerequisites: Biology 4241, Biochemistry 4100 [or equivalent])

22 Regulations Governing the Degree of Master of Science in Pharmacy

Associate Professor and Director of the School of Pharmacy
L.R. Hensman

The degree of Master of Science in Pharmacy is offered to qualified full-time and part-time students by the School of Pharmacy. The **General Regulations** of the School of Graduate Studies of Memorial University of Newfoundland outlined in the current Calendar, and the Degree Regulations of the School of Pharmacy outlined below will apply to the M.Sc. Pharm. program. Every candidate in graduate studies shall comply with the **General Regulations**, the Degree Regulations and all additional requirements of the School of Pharmacy.

22.1 Qualifications for Admission

Admission to the M.Sc. Pharm. program will be offered on the basis of academic excellence. The basic requirements for admission are those established by the School of Graduate Studies of Memorial University of Newfoundland. The minimum qualification for admission is a recognized four-year undergraduate degree in Pharmacy, or a recognized four-year undergraduate degree in physical, chemical or biological science, or equivalent, with an overall B average.

Applications submitted through the School of Graduate Studies will be evaluated by the Graduate Studies Committee of the School of Pharmacy. No candidate will be admitted to the program without a recommendation of acceptance by the Graduate Studies Committee. Admission of a candidate to the M.Sc. Pharm. program shall be made by the Dean of Graduate Studies.

22.2 Formulation of Program of Study

Upon acceptance to the program, the supervisor will assess the student's research interests, background, strengths and weaknesses. The supervisor will formulate a program of study (see below) and select a supervisory committee for the student. The program of study will be selected on the basis of the thesis research, the background of the student, and the perceived need for specific graduate courses that will complement the student's working knowledge in his/her area of research. The supervisory committee will include the supervisor, one other academic staff person from the School of Pharmacy, and one external academic staff person from Memorial University of Newfoundland. This committee will advise the student about his/her thesis research. Accordingly, they will meet with the student within two months of his/her initial registration, at the end of the second semester (8th month of study), at the end of the fourth semester (16th month), and immediately before the student begins to write the thesis. Both the program of study and the supervisory committee must be approved by the Graduate Studies Committee.

22.3 Program of Study

1. Minimum requirements for the M.Sc.Pharm. degree will be the successful completion of:
   a. Six credit hours in program graduate courses chosen from those available in Pharmacy, Medicine or Biochemistry.
   b. Pharmacy Seminar
   c. A thesis embodying original research
2. Graduate courses will be chosen based on the academic background of the student and the area of his/her thesis research.

   Note: *Qualified students accepted into the program who are considered to have an insufficient background for their thesis research may be required to successfully complete additional courses as selected by their supervisor.*
3. Pharmacy Seminar: All candidates for the Degree of M.Sc. (Pharm.) will be required to participate in the Pharmacy Seminar during the first two years of their program. Selected topics in pharmaceutical sciences will be presented and discussed by faculty, students and visiting speakers. Graduate students will be required to present one seminar each year. In the second year of study, the graduate student will present a progress report of his/her research in the seminar. Upon successful completion of the seminar the Chair of the Graduate Studies Committee will so notify the Dean of Graduate Studies.

Courses

Permission of the instructor and the Graduate Studies Committee of the School of Pharmacy is required for admission to any of the graduate Pharmacy courses.

6000 Medicinal Chemistry
6001 Advanced Physical Pharmacy
6002 Dosage Form Design & Novel Drug Delivery Systems
6003 Pharmacokinetic Modeling
6004 Principles of General Pharmacology
6005 Toxicology of Therapeutic Agents and Chemicals
6100-6104 Special Topics in Pharmacy

M.Sc. Pharmacy Thesis

Every candidate shall submit a thesis to the School of Graduate Studies. The thesis shall contain original research conducted by the candidate and approved by the supervisory committee.

In preparation for the thesis examination, the candidate will provide a copy of the thesis to each member of the supervisory committee. Each member of this committee will submit a written report to the Chairman of the Graduate Studies Committee.

Before the thesis is submitted, the student shall present an open seminar on the topic of investigation to the School of Pharmacy. Any serious deficiencies noticed at this stage should be carefully considered, in consultation with the supervisory committee, for revision.

Three copies of the thesis shall be submitted to the School of Graduate Studies through the School of Pharmacy, in a form and format as specified by the School of Graduate Studies.

As specified in General Regulation **Theses and Reports** of the School of Graduate Studies, the written thesis will be reviewed by examiners appointed by the Dean of Graduate Studies on the recommendation of the Director of the School of Pharmacy or the Chairman of the Graduate Studies Committee.

23 Regulations Governing the Degree of Master of Social Work

Associate Professor and Director
S. Birnie-Lefcovitch

The degrees of Master of Social Work and Doctor of Philosophy are offered in social work.

The MSW may be completed by part-time or full-time study. Except for internships and the institute component of practice courses, courses are delivered by distance format, and not in a regular classroom format. "Distance delivery" includes course delivery using any or all of web-based format, traditional correspondence (readings packages, mailed assignments), and tele or videoconferencing.

The degree of MSW is offered in selected specializations. The program allows professionally qualified social workers holding the Degree of BSW or an equivalent professional undergraduate degree in Social Work to undertake intensive advanced work in a specialized area of social work knowledge and practice. The particular specializations offered may change from time to time, according to resources, societal needs, the state of knowledge and trends in professional practice. Currently, advanced clinical practice is the specialization offered.

Students admitted to the MSW program prior to 1999 who are enrolled in specializations which are no longer offered, should consult with the Graduate Officer in the School of Social Work to discuss options for completion.

The program is designed to be accessible to students in remote and rural areas, and assumes that: (1) students will have a computer and internet access; and, (2) can travel to St. John's for the institute portion of the three practice courses. Students studying outside St John's, Newfoundland, will also be expected to purchase internet service or to incur long distance charges for accessing their Memorial University of Newfoundland internet account.

The deadline date for receipt of applications for admission in September of each year is February 28. Under special circumstances, late applications and admissions in other semesters may be considered.

Entrance into all courses and the offering of any course in an academic year is by approval of the School, consistent with the candidate's program. Candidates are admitted only into a designated program of studies in an area of specialization.

The School of Social Work may deliver special offerings of the MSW and/or other programs of the School to identified groups of out-of-province students where numbers warrant. These offerings will be self supporting, and therefore subject to an additional one-time non-refundable tuition fee as approved by the Board of Regents and payable on first registration following formal admission to the program. Students will also pay appropriate tuition fees for each semester during their tenure in the program.

Admission to the special offerings of these programs will be competitive, using the same procedures and standards that are in place for students applying to the St John's campus program(s).

Subject to approval by the Committee on Graduate Studies for the School of Social Work, students admitted to an out-of-province program offering may apply to transfer to the equivalent program on the St. John's campus. In such instances, the fee structure under which the student was admitted will not change. Subject to approval by the Committee on Graduate Studies for the School of Social Work, students admitted to a St. John's based program may apply to transfer to the equivalent out-of-province program. In these instances, students transferring from the St. John's based program offerings to an equivalent out-of-province offering will be required to pay a pro-rated one-time fee upon formal transfer to the special offering.

23.1 Qualifications for Admission

1. Admission is limited, selective and competitive.
2. To be considered for admission an applicant shall hold a Bachelor of Social Work degree from an institution recognized by the Senate, with at least second class standing, and an average of at least Grade B in the last 60 undergraduate credit hours, or an equivalent professional undergraduate degree in social work approved by the Graduate Studies Committee of the School of Social Work for recommendation to the Dean.
3. In addition to the stated academic requirements, the applicant must have completed, subsequent to obtaining the BSW degree, at least two years employment in professional social work practice or in a comparable human service discipline or activity. Extensive relevant experience prior to undergraduate degree work may be recognized in full or partial fulfillment of this requirement.

23.2 Procedure for Admission

1. Applicants must submit an application for admission with supporting documentation to the School of Graduate Studies. The supporting documentation will consist of: an official transcript of the applicant's previous academic record submitted directly from the institution(s) attended; a statement of previous professional employment, a list of any published or unpublished works, and a declaration of program emphasis and educational objectives; and three letters of appraisal, to be submitted by three referees capable of assessing the applicant's previous academic and/or practice performance. Letters of appraisal are to be submitted directly to the School of Graduate Studies.
2. The Graduate Studies Committee of the School of Social Work may require the applicant to appear for a personal interview with a faculty member or members.
3. A student who meets the basic admission requirements under **Qualifications for Admission,** 2 and 3 above may, space permitting, take no more than 6 credit hours in Social Work graduate courses without applying for and being admitted to the MSW program. Students wishing to take courses under this provision should submit to the School of Social Work a REQUEST FOR PERMISSION TO REGISTER IN A GRADUATE COURSE with evidence of BSW graduation, and apply or reapply for admission to Memorial University of Newfoundland as an undergraduate at least six weeks before the beginning of the semester in which the class is to be taken.
4. A person who has completed an MSW degree is eligible to register in any MSW course offering, space permitting.
5. Qualified students admitted to other graduate programs may, space permitting, apply to take Social Work graduate courses 6011, 6412, 6422, 6332 and graduate social work electives. Students wishing to take courses under this provision should submit a REQUEST FOR PERMISSION TO REGISTER IN A GRADUATE COURSE, academic transcripts and a brief professional resume to the Graduate Officer in the School of Social Work.

23.3 Program of Study and Research

1. A candidate's program will be developed cooperatively by the candidate and a faculty advisor designated for this purpose by the Director of the School. The faculty advisor shall counsel the candidate on course selection.
2. Specified supplementary studies may be required to ensure requisite knowledge pertinent to the specialization.
3. A candidate electing a thesis program shall be assigned a supervisor by the Director in consultation with the student. It is recommended that a thesis supervisor be assigned as early in the program as possible. The thesis supervisor, when assigned, shall normally assume the duties of faculty advisor under 1. above.
4. Candidates admitted to the MSW Program in Advanced Clinical Practice thesis route must complete a thesis and a minimum of 21 credit hours consisting of 6011, 6312, 6322, 6332, 6412, 6422 and 6912 (Internship). In addition to these courses, non-thesis candidates must also complete 6432, 6442 and a 3 credit hour graduate elective in social work or a related discipline as requested by the candidate and approved by the graduate advisor. Candidates in either route may be required to take additional courses.

23.4 Internship

Each MSW student is required to complete an advanced clinical internship that is to be conducted in a setting and supervised by a field instructor approved by the School of Social Work. The graduate field Co-ordinator is responsible for facilitating appropriate matches between the student, field instructor, and field internship setting. Acceptable field instructors must have as a minimum qualification a MSW degree. Although consideration will be given to all factors affecting the location and type of social work internships, final approval of an internship rests with the School of Social Work. The School cannot guarantee the availability of MSW field instruction in all communities and at all times.

Students are responsible for their own financial support during the internship. Part-time internships of two semesters will require approval from the proposed agency field instructor and the graduate field Co-ordinator.

At least four months prior to the commencement of the semester in which they intend to begin 6912, the 500 hour field internship, all candidates shall submit a completed Field Internship Planning Information Form. At least six weeks before the internship commences, students shall submit a Social Work Field Internship Proposal. Evaluation of the internship in Advanced Clinical Practice will be on a PASS/FAIL basis.

Candidates who voluntarily withdraw from the social work internship without prior approval of the graduate field Co-ordinator and the chair of the Graduate Studies Committee, or who conduct themselves in such a manner as to cause the agency and the field Co-ordinator to terminate the placement, will normally be awarded a grade of Fail in the internship course.

Candidates who voluntarily withdraw from the field internship with the prior approval of the graduate field Co-ordinator and the chair of the Graduate Studies Committee cannot be guaranteed a second internship during that semester. In this case, the candidate will be awarded a grade of Incomplete for the internship course. The candidate shall normally complete an internship the following semester.

23.5 Course Format

To increase accessibility for students in remote and rural practice, we offer courses in the following formats:

1. 6011, 6412, 6422, and social work electives will be offered by distance delivery; that is, not in a regular classroom format.
2. 6312, 6322 and 6332: By residential institute consisting of 36 hours of condensed classroom instruction. These courses also include home-study and teleconference and/or internet components scheduled prior to and/or following the institute. Students must be available on a full-time basis to attend classes and complete assignments and group projects during the institute portion of these courses. It is recommended that students take leave from their employment for the duration of a residential institute which may be scheduled in a combination of weekday, evening and weekend hours within a two and a half week time period. The final decision regarding the residential institute schedule rests with the School of Social Work.
3. 6912, Advanced Clinical Practice Internship and 6432 Research Internship can be completed in St. John's, or in a student's home community where appropriate supervision is available.
4. 6442, Colloquium Presentation, may be conducted in St. John's or in a student's home community, provided suitable audio-visual facilities are available.
5. In exceptional circumstances, and contingent upon student numbers and school resources, additional course sections may be offered in a regular classroom format.

23.6 Period of Study

For students admitted to the program outlined in 23.3.4. above:

1. For the candidate in part-time enrolment, the program of study is designed to permit completion of all degree requirements within nine semesters or three calendar years.
2. For the candidate in full-time enrolment non-thesis route, the program of study is designed to permit completion of all degree requirements within three semesters or one calendar year, as follows.

   Fall semester: 6011, 6312(institute), 6412
   Winter semester: 6322(institute), 6422, Elective
   Spring semester: 6432, 6442, 6332 (institute), 6912

23.7 Evaluation

1. Failure to attain a final passing grade of A or B in a program course, *or PASS in a PASS/FAIL course,* shall lead to termination of the student's program, unless a re-read has been requested. Failure to obtain the required grades as stated above in the re-read shall lead to termination of the student's program.
2. When the Director has determined, on the basis of consultation with the candidate, the advisor, or supervisor, and the instructors, that a candidate's work has fallen below a satisfactory level, the Director may recommend to the Dean of Graduate Studies that the candidate be required to withdraw from the program.
3. To remain in good standing students are required to maintain professional behaviour consistent with the current Code of Ethics of the Canadian Association of the Social Workers. Students who fail to meet this requirement will be required to withdraw from the School upon the recommendation of the Graduate Studies Committee.

23.8 Thesis

See General Regulation **Theses and Reports**.

Note: *Every candidate shall comply with the **General Regulations** governing the School of Graduate Studies and the MSW Degree Regulations.*

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the School will allow.

Core Courses

6011 Critical Thinking and Ethical Evaluation for Assessment and Intervention (3 credit hours) (Not required by students who have successfully completed 6010)

6312 Crisis Intervention, Brief and Integrated Therapies for Diverse Individuals (3 credit hours) (Prerequisite/Co-requisite 6011 or the former 6010) (Not required by students who have successfully completed 6311)

6322 Family Therapy: Promotion of Strengths and Prevention of Violence in Diverse Families (3 credit hours) (Prerequisite 6011or the former 6010) (Not required by students who have successfully completed 6321)

6332 Social Work Perspectives in Interdisciplinary Team Development and Group Therapy (3 credit hours) (Prerequisite 6011or the

former 6010) (Not required by students who have successfully completed 6331)
6412 Research Design for Social Work Assessment and Evaluation (3 credit hours) (Not required by students who have successfully completed 6411)
6422 Data Analysis for Social Work Assessment and Evaluation (3 credit hours) (Prerequisite 6412 or the former 6411)
6432 Research Internship (2 credit hours) (Prerequisite 6412 or the former 6411 and 6422)
6442 Colloquium Presentation Integrating Theory and Research in Advanced Clinical Practice (1 credit hour) (Prerequisite/Co-requisite 6912, 6432)
6912 Advanced Clinical Practice Internship (3 credit hours) (Prerequisites 6312 or the former 6311; 6322 or the former 6321; and Prerequisite/Co-requisite 6332 or the former 6331)

Electives (3 credit hours)
6230 Seminar in Community Development
6530 Seminar in Social Administration: Evaluation of Policies and Programs
6540 Supervision in Professional and Clinical Practice
6550 Feminist Therapy in Social Work Practice
6820-29 Individual Reading and Research in Special Areas
Although the School does not currently offer a program in Social Policy and Administration, it has faculty expertise in these areas and may, resources permitting and given sufficient student interest, offer the following elective courses:
6210 Seminar in Social Planning and Social Development
6220 Seminar in Organization Development
6510 Seminar in Social Administration: Social Policy Analysis, Development and Administration
6520 Seminar in Social Administration: Program Design and Development

24 Regulations Governing the Degree of Master of Women's Studies

Associate Professor and Co-ordinator
J. Guthrie

The degree of Master of Women's Studies is designed for students from any discipline who have an appropriate background in Women's Studies. The objectives of the program are:

to provide students with advanced courses in a broad range of Women's Studies specialties and particularly in Women's Studies theories and methods; to equip students with the practical, theoretical and methodological skills to carry out independent research at the master's level; and to foster interdisciplinary approaches to the study of women.

The program is administered by the Women's Studies Graduate Committee, the members of which are appointed by the Dean of Arts on the advice of the Women's Studies Council. The members of the Graduate Committee are drawn from faculty teaching in the Women's Studies Program.

The Graduate Co-ordinator, on behalf of the Women's Studies Graduate Committee, makes recommendations to the Dean of Graduate Studies concerning admission, and financial support for students, and administers all other matters pertaining to the graduate program.

24.1 Master of Women's Studies Degree

The degree of Master of Women's Studies is offered by full- or part-time study. Candidates may choose a thesis or non-thesis (project or internship) program. The program draws scholarly participation from faculty members in a range of academic disciplines within the School of Graduate Studies.

24.2 Qualifications for Admission

1. Admission is limited and competitive. To be considered for admission, an applicant will normally hold an honours degree or equivalent, and will have a breadth of knowledge in Women's Studies satisfactory to the Women's Studies Graduate Committee.
2. Applicants who do not have an adequate background in Women's Studies may be required to complete Women's Studies 4000 or equivalent normally with a grade of 75% or higher.

24.3 Program of Study

1. Upon admission each graduate student on the thesis program will be assigned two supervisors from different disciplinary units. For students selecting the non-thesis option, one supervisor will be assigned.
2. All candidates are required to complete Women's Studies 6000, 6100, 6200, and 6300.
3. Three to 9 additional elective credit hours approved by the Women's Studies Graduate Committee and the student's supervisor(s) will be required. These elective credit hours will comprise courses selected from graduate courses in cognate academic units, and/or Women's Studies 6380, 6500, and/or from the block of special topics courses in Women's Studies WSTD 6400-6409.
4. Each student will be required to give a public seminar on her/his thesis research, project, or internship before submission of her/his work.

24.4 Thesis

1. Candidates for the degree of Master of Women's Studies (thesis option) will be required to complete a minimum of 15 credit hours. Candidates will also be required to complete a thesis.
2. A thesis proposal, approved by the student's supervisors, will be presented to the Women's Studies Graduate Committee for its approval. The thesis proposal must normally be approved by the Women's Studies Graduate Committee no later than the end of the candidate's third semester in the program.
3. The thesis will be evaluated in accordance with the procedures outlined in General Regulation **Theses and Reports** of the School of Graduate Studies.

24.5 Project

1. Candidates for the degree of Master of Women's Studies (project option) will be required to complete a minimum of 18 credit hours. Candidates will also be required to complete a project.
2. The Master's project, must be interdisciplinary in nature and aimed at linking theoretical and practical knowledge: by recognizing and articulating a problem to which Women's Studies knowledge can be applied; by developing and justifying practical approaches which

seek to resolve the problem; and by creating a product that could be implemented in the community. The project report should consist of the project (e.g., a CD-ROM; a computer project; a manual or guidebook; a kit of learning resources; photographs; audio or videotape, etc.) as well as a literature-based rationale, theoretical basis and justification for its use. The length of the written portion of the project should be 50-70 pages. Regardless of the form that the project takes (e.g., a CD-ROM; a computer program; a manual or guidebook; a kit of learning resources; photographs; audio or videotape, etc.), there must be a written project report.

3. A project proposal, approved by the student's supervisor, will be presented to the Women's Studies Graduate Committee for its approval. The project proposal must normally be approved by the Women's Studies Graduate Committee no later than the end of the candidate's third semester in the program.
4. The project will be evaluated in accordance with procedures outlined in General Regulation **Theses and Reports** of the School of Graduate Studies.

24.6 Internship

1. Candidates for the degree of Master of Women's Studies (internship option) will complete a minimum of 18 credit hours. Candidates will also be required to complete an internship.
2. Internship placements shall be for one semester. Part-time internships of two semesters will require approval from the proposed agency or institution and the Women's Studies Graduate Studies Committee.
3. Students, in consultation with their supervisor and the Women's Studies Graduate Co-ordinator, will explore internship options and locate an eligible person to provide field instruction during their internship. Although consideration will be given to all factors affecting the location and type of all Women's Studies internships, the final decision regarding internship rests with the Women's Studies Program and the Dean of Graduate Studies.
4. Factors affecting the type and location of the internship include: the number of immersion hours per week; the extent to which the intern takes up a trainee, supervisory and/or research role and whether the intern would be working directly or indirectly with clients of the agency or institution.
5. Each internship shall be supervised by a Supervisory Committee of at least three members, including the candidate's supervisor, the field supervisor, and Women's Studies Graduate Co-ordinator or her/his delegate.
6. The Supervisory Committee will meet with the intern and field instructor at least once during the internship period to make an assessment of the nature and quality of the intern's progress, and to approve any modifications to the internship.
7. The internship proposal, approved by the student's supervisors, will be presented to the Women's Studies Graduate Committee for its approval. The proposal must normally be approved by the Women's Studies Graduate Committee no later than the end of the candidate's third semester in the program.
8. Regardless of the form that the internship takes, there must be a written internship report (35-50 pages). When the candidate completes the internship report, the Supervisory Committee will recommend to the Dean of Graduate Studies a grade of pass or fail. A candidate will be permitted to submit an internship report only after the Committee has determined that the internship placement has been fully completed.
9. Should the Women's Studies Co-ordinator, on the recommendation of the Supervisory Committee, terminate the internship prior to its completion, it may recommend to the Dean of Graduate Studies one of the following:
   a. submission of a new internship proposal for a different field setting (once only);
   b. selection of the thesis or project option;
   c. termination of the student's program.

Courses

6000 Feminist Theory
6100 Epistemological and Methodological Approaches to Women's Studies
6200 Graduate Seminar in Women's Studies
6300 Feminism as Community
6380 Women, Nature, Science and Technology (Cross listed as Sociology 6380)
6400-6409 Special Topics in Women's Studies
6500 Women and Communication Studies

25 Regulations Governing the Degree of Doctor of Philosophy and Specific Program Regulations

Note: *In this and following regulations and notes, "Head" and "Department" shall be understood to mean "Dean or Director" and "Faculty or School" respectively, applying the regulations to a Faculty or School in which there are no departmental divisions.*

Students should consult the General Information and Regulations Governing All Graduate Students for information concerning the Degree of Doctor of Philosophy. For information concerning the number of courses required for specific programs, students should consult the following listing for the appropriate department.

Tuition leading to the degree of Doctor of Philosophy is offered in selected areas in Anthropology, Atomic and Molecular Physics, Biochemistry, Biology, Chemistry, Cognitive and Behavioural Ecology, Computer Science, Condensed Matter Physics, Earth Sciences (Geology), Earth Sciences (Geophysics), Education, Engineering, English Language and Literature, Ethnomusicology, Experimental Psychology, Folklore, Food Science, Geography, History, Linguistics, Management, Marine Biology, Mathematics, Medicine, Pharmacy, Physical Oceanography, Social Work, Sociology, and Statistics.

25.1 Anthropology and Archaeology

Professor and Head of the Department

P. Pope

1. The Ph.D. in Anthropology is offered in a) prehistoric and historic archaeology of Northeastern North America and the Arctic and b) historical anthropology and ethnography of Newfoundland and Labrador, and Western Europe.
2. An applicant must normally hold a Master's degree with a specialization in archaeology or social and cultural anthropology. In exceptional circumstances, a student who has spent three semesters in the M.A. program may be recommended for transfer into the Ph.D. stream.
3. Residency: the Department requires a minimum residency of two years for Ph.D. students.
4. A supervisory committee will be established for each student as per General Regulation **Supervision, Ph.D. Candidate**, 2.

5. Program of study:
   a. Students will normally be required to successfully complete two courses during their first three semesters in the program.
      i. Archaeology: 6700, 6411
      ii. Social/Cultural: 6300, 6890
   b. The supervisory committee may require the candidates to complete additional graduate courses.
6. All candidates must demonstrate a reading knowledge of a second language to be determined in consultation with the supervisory committee. This language will normally be a language in which there is a substantial body of literature in either Archaeology or Social and Cultural Anthropology. It could also be a field language pertinent to the candidate's project. The exam will be set and marked by an authority determined by the Head of the Department and the Dean of Graduate Studies (see **General Regulation Evaluation, Evaluation of Graduate Students**, 4. and will normally be completed before the Comprehensive Examination is undertaken.
7. The Ph.D. Comprehensive Examination shall be administered in accordance with General Regulation **Comprehensive Examinations**. The examination may be oral, written or both, and shall consist normally of three sessions, each of up to three hours duration, within a one week period, or three (3) one week take home examinations. Candidates will prepare for these examinations by undertaking supervised readings in three fields prescribed by the three members of the comprehensive exam committee. The examination will deal with specified areas of either archaeology or social/cultural anthropology. The examination will normally be scheduled in the third week of November each year in the second year of the candidate's program.
8. The candidate must submit a written thesis proposal for presentation to the department two months following completion of his/her comprehensive examination.
9. As stated in the **General Regulations** for Graduate Studies, the time limit for completion of the degree is 7 years.
10. Submission of dissertation and the oral defence of dissertation will follow General Regulation **Theses and Reports, Evaluation of Ph.D. Theses**.

Courses

Archaeology/Physical Anthropology Courses (A/P)
6020 Physical Anthropology
6040 Human Osteology
6095 Advanced Studies in Ethnohistory (same as History 6095)
6151 Palaeoethnobotany
6181 Palaeoeskimo Cultures of the Eastern Arctic
6182 Advances in Material Culture Analysis
6187 Readings in Maritime Provinces Prehistory
6189 Palaeopathology
6191 Approaches to Early Modern Material Culture
6192 Conservation Method and Theory
6290 Newfoundland and Labrador Prehistory
6310 Economic Analyses in Archaeology
6320 Ethnoarchaeology
6330 Archaeological Field Conservation
6409 History of Archaeology
6411 Theory and Method in the Study of Archaeology and Prehistory
6500 Special Topics in Historical Archaeology (Prerequisite 6191)
6680-6699 Special Topics in Archaeology and Prehistory
6700 Interpretative Methods in Archaeology
6890 Graduate Seminar

Social/Cultural Anthropology Courses (S/C)
6010 Cultural Ecology
6071 Health and Illness: Cultural Contexts and Constructions
6081 Anthropology of Gender
6089 Anthropology of Underclass Life
6100 Social Organization
6110 Culture and Personality
6140 The Community
6210 Language and Culture
6240 Atlantic Regional Studies
6260 Social and Economic Development
6280 Newfoundland Ethnography
6281 Labrador Ethnography
6282 Ethnography of a Single Region
6300 Fieldwork and Interpretation of Culture
6400 Current Themes in Cultural Anthropology
6410 History of Anthropology
6412 Anthropological Theory
6413 Applied Anthropology
6430 Audiovisual Anthropology
6440 Master's Research Paper (9 credit hours)
6580-6599 Special Areas in Anthropology
6600 Contemporary Debates in Anthropology
6890 Graduate Seminar

25.2 Biochemistry

Professor and Head of the Department
M. Mulligan

1. The degree of Doctor of Philosophy is offered in Biochemistry or Food Science to full-time and part-time students.
2. The admission requirements for the graduate programs in Biochemistry and Food Science are as given under **General Regulations**. Depending on the background and/or area of specialization, a candidate's program may include additional courses

taken for credit in Biochemistry, Food Science or related subjects.

3. The program of a candidate for the Ph.D. degree shall be the responsibility of the supervisory committee, composed of the Supervisor and at least two other faculty members recommended with the concurrence of the Supervisor by the Head.
4. It is the responsibility of the student to arrange regular meetings with their graduate supervisory committee. An annual report, prepared by the Supervisor and signed by all members of the supervisory committee, is required to be given to the Head.
5. All candidates for the Ph.D. degree shall be required to attend and participate in Departmental seminars.
6. A candidate for the Ph.D. will be required to present a seminar on his/her research area within 18 months of starting the program and again immediately prior to the submission of thesis.

Additional Regulations for Each Program

Biochemistry (Additional)

7. A candidate for the Ph.D. in Biochemistry shall take the Comprehensive Examination normally within the first 6 months of his or her program and under no circumstances later than the first anniversary of enrolment in the doctoral program. The examination will be both written and oral. Students will be examined on their general knowledge in Biochemistry as well as in the area of their research specialization. Failure of this examination will result in the termination of the candidate's program.

Food Science (Additional)

8. A candidate for the Ph.D. degree in Food Science shall be required to take the comprehensive examination normally within three semesters of his/her enrolment in the doctoral program and under no circumstances later than six semesters. The examination shall consist of two parts:
   a. A written examination covering the following areas of food science.

      Food Chemistry
      Food Processing
      Food Microbiology and Biotechnology
      Biochemical and Food Engineering
      Food Analysis
      Nutrition Fundamentals

   b. The candidate shall be required to defend orally an assigned research topic that may be related to his/her area of concentration. The candidate shall be required to provide a written submission of the research topic to the examination committee at least three weeks before the date of the oral examination. The comprehensive examination committee shall examine the candidate orally on any or all aspect(s) of the research topic and the written examination.
   c. In order to pass the comprehensive examination, the candidate is required to pass both the written and oral segments.

Courses

A series of advanced courses in the areas outlined below will be offered. Normally only one course will be offered per semester.

6200 Current Biochemical Research Topics I
6210 Current Biochemical Research Topics II
6400 Control of Intermediary Metabolism
6410 Molecular Endocrinology
6420 DNA: The Structure and Function of Genes (Prerequisite: An introductory course in molecular biology, or its equivalent, at the senior undergraduate level, e.g. Biochemistry 4100)
6421 RNA: Structure, Function and Synthesis (Prerequisite: An introductory course in molecular biology, or its equivalent, at the senior undergraduate level, e.g. Biochemistry 4100)
6422 Regulation of Protein Synthesis (Prerequisite: An introductory course in molecular biology, or its equivalent, at the senior undergraduate level, e.g. Biochemistry 4100)
6430 Bioenergetics
6440 Membranes
6450 Proteins
6500 Enzymology
6520 Nutritional Biochemistry
6530 Food Biochemistry
6590 Molecular Biology I (Cross listed as Biology 6590 and Medicine 6590) Prerequisites: Biology 4241, Biochemistry 4100 (or equivalent)
6591 Molecular Biology II (Cross listed as Biology 6591 and Medicine 6591) Prerequisites: Biology 4241, Biochemistry 4100 (or equivalent)
6592 Bacterial Genetics (Cross listed as Biology 6592) Prerequisite: Biology 4241 or Biochemistry 4100 (or equivalent)
6593 Selected Readings in Molecular Biology (Cross listed as Biology 6593) Prerequisites or Co-requisites: Biology 6590, 6591/ Biochemistry 6590, 6591/Medicine 6590, 6591 (or equivalent)
6600 Metabolic Toxicology
6610 Comparative Biochemistry
6620 Biochemical Adaptation
6630 Marine Biochemistry
6640 Biochemistry of Cancer
6650 Science and Technology of Seafoods
6660 Industrial Microbiology
6670 Biological Waste Treatment
6680 Processing and Quality of Foods

25.3 Biology

Associate Professor and Head of the Department
P. Marino

The degree of Doctor of Philosophy is offered in Biology to full-time and part-time students in Biology and Marine Biology. Students interested in animal behaviour should also consult the section in the Calendar describing the Doctoral programs in Cognitive and Behavioural Ecology.

25.3.1 Biology

1. Admission to a Ph.D. program in Biology shall not normally take place until after the completion of the course requirements and the

submission of the thesis for the M.Sc. degree. However, on the recommendation of the Department, this requirement may be waived by the Dean of Graduate Studies.

2. The program of a candidate shall be the responsibility of a Supervisory Committee composed of the Supervisor and at least two other appropriate members recommended to the Dean by the Head (or delegate) of the Department with the concurrence of the Supervisor.
3. The Supervisory Committee shall interview the student normally within a month of first registration, to discuss the student's program and to explore any areas of weakness in the candidate's biological knowledge, especially where these relate to the intended areas of research. The Supervisory Committee will recommend a student's subdiscipline within Biology to the Department in writing after this meeting.
4. It is the function of a Supervisory Committee to have regular meetings, at least annually, with its graduate student. A meeting report, signed by all members of the Supervisory Committee and student, must be given to the Department. A copy will be sent to the graduate student and to the Dean of Graduate Studies.
5. The candidate will present a tentative outline of the proposed research to the Supervisory Committee, with a copy to the Department by the end of the second semester, and preferably prior to commencement of the research.
6. The student will present a research seminar to the Department, normally by the end of the second semester following admission, to describe the research topic being investigated and the methodologies to be employed. This seminar provides an opportunity for the student to receive constructive input from the broad biological community.
7. When the Supervisory Committee deems it necessary, a working knowledge of a language other than English may be required.
8. Comprehensive Examination
   a. Timing of Examination
      i. Timing of the comprehensive examination shall follow General Regulation, 1. under **Comprehensive Examination, Ph.D Comprehensive Examination** governing the degree of Doctor of Philosophy. A candidate registered in a full-time Ph.D. program in the Faculty of Science, Department of Biology shall normally take the comprehensive examination during the first year of the program, and no later than one year after completion of the prescribed courses.
      ii. The procedure shall be initiated by the candidate's Supervisor who will notify the Department of Biology, in writing, of the candidate's readiness. Failure to meet the above requirement can result in the candidate being required to withdraw from the program.
   b. Examination Committee

      The Examination Committee shall be appointed by the Dean of Graduate Studies on the recommendation of the Department of Biology according to Regulation **Comprehensive Examinations, Ph.D. Comprehensive Examination**, 2. of the **General Regulations** of the School of Graduate Studies. No more than two members of the Examination Committee may be members of the candidate's Supervisory Committee. The committee shall meet and recommend to the Department in writing an examination seminar topic within the student's previously determined subdiscipline.
   c. Examination Procedure

      The Department shall provide the student the examination date and the seminar topic in writing not more than six nor less than four weeks prior to the examination. The student shall provide each member of the Examination Committee a written paper on the seminar topic one week prior to the examination. The Examination Committee shall evaluate the candidate's presentation and response to questions put to him/her during the Oral Examination both on the seminar and within the student's subdiscipline of Biology.
   d. Subsequent Action

      The Examination Committee will meet in camera to arrive at its conclusions. The Chair shall report the results of the Examination to the Head and the Dean of Graduate Studies for transmission to the candidate. The report will include one of the following decisions: a) the student passed with distinction, passed or failed. b) if failed and it is the first examination whether the student may be re-examined.
   e. Re-examination

      Comprehensive Re-examination if permitted will occur not sooner than one month and not more than six months after the first. The candidate and his or her Supervisory Committee shall be informed of the deficiencies found. The format for the second examination will be determined by the Examination Committee with the approval of the Biology Graduate Studies Committee. The candidate will be informed of the topic and format four to six weeks prior to the examination. The examination will follow the procedure outlined in 8.c & d above. A failure will require the student to withdraw from the program.
9. Theses shall conform to **Theses and Reports** of the **General Regulations** of the School of Graduate Studies and the Departmental Guidelines.

25.3.2 Marine Biology

1. A program of study leading to a Doctor of Philosophy with a specialization in Marine Biology is governed by the above regulations.
2. To be considered for admission, applicants must have a background equivalent to that provided by the M.Sc. specialization in Marine Biology.
3. Normally students will be required to take 6 credit hours in Biology courses from the following group: 6710, 7531, 7535, 7540, 7541, 7551, 7560 and 7561.
4. Depending on the student's area of research and background additional courses may be required.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

6000 Research Topics in Microbiology
6100 Modern Problems in Botany
6110 Advanced Phycology
6120 Mycology
6350 Behavioural Ontogeny (Cross-listed as Psychology 6350)
6351 Behavioural Ecology and Sociobiology (Cross-listed as Psychology 6351)
6355 Field Course in Animal Behaviour (Cross-listed as Psychology 6355)
6400 Parasitic Protozoology
6410 Helminthology

6420 Parasitic Arthropods
6590 Molecular Biology I (Cross-listed as Biochemistry 6590 and Medicine 6590) Prerequisites: Biology 4241, Biochemistry 4100 (or equivalent)
6591 Molecular Biology II (Cross-listed as Biochemistry 6591 and Medicine 6591) Prerequisites: Biology 4241, Biochemistry 4100 (or equivalent)
6592 Bacterial Genetics (Cross-listed as Biochemistry 6592) Prerequisite: Biology 4241 or Biochemistry 4100 (or equivalent)
6593 Selected Readings in Molecular Biology (Cross-listed as Biochemistry 6593) Prerequisites or Co-requisites: Biology 6590, 6591/ Biochemistry 6590, 6591/Medicine 6590, 6591, (or equivalent)
6700 Biology of the Molluscs
6710 Marine Benthic Biology
6900 Entomology
6910 Applied Entomology
7110 Cellular Physiology and Cytology
7140 Physiology of Parasitism
7210 Arctic and Subarctic Biology
7220 Quantitative Methods in Biology
7250 Topics in Wildlife Biology
7270 Ecology of Newfoundland
7300 Ornithology
7510 Ichthyology
7520 Advances in Fish Biology
7530 The Molecular Basis of Development
7531 Biological Oceanography
7535 Research Methods in Marine Science
7540 Plankton Dynamics
7541 Physiological Ecology of Phytoplankton
7550 Fishery Biology
7551 Fisheries Resource Management
7560 Physiology of Marine Invertebrates
7561 Physiology of Marine Vertebrates
7570 Marine Benthic Biology
7600 Effect of Organic and Inorganic Pollutants on Biological Systems
7910 Community and Ecosystem Ecology
7920-7940 Special Topics in Biology

25.4 Chemistry

Associate Professor and Head of the Department
R. Davis

The degree of Doctor of Philosophy in Chemistry is offered as full-time or part-time study.

A Master's degree in Chemistry or related area from a recognized university is normally required for entry into the Ph.D. program. Students holding a Bachelor's degree (Honours or equivalent) in Chemistry may be considered for direct admission into the Ph.D. program. Students currently registered in the Memorial University of Newfoundland's Chemistry M.Sc. program for a minimum of three semesters may request transfer into a Ph.D. program. The transfer should be supported by the Supervisor and the Supervisory Committee and subsequent to satisfactory presentation of a written progress report and Ph.D. research proposal.

1. Candidates are normally required to write American Chemical Society (ACS) placement test(s) in the first two weeks of the initial semester of registration in order to determine an appropriate course program.
2. Candidates will be assigned a Supervisory Committee consisting of the Supervisor and at least two other appropriate faculty members appointed by the Dean on recommendation of the Chemistry Deputy Head (Graduate Studies).
3. The program of a candidate must be arranged by the Supervisor in consultation with the Supervisory Committee and the student before the second semester of registration. It is the responsibility of the Supervisory Committee to meet at least annually with the student, to provide guidance at all stages of the candidate's program, and, in consultation with the student, to prepare annual written progress reports for submission to the Dean of Graduate Studies.
4. Candidates holding a Master's degree from a recognized university are normally required to successfully complete a minimum of 6 credit hours of graduate Chemistry courses with a minimum grade of B and to present a departmental seminar on a topic not directly related to the candidate's research (Chemistry 6002) as well as a seminar describing the candidate's research (Chemistry 6003). Courses taken towards a Master's degree may not be repeated. Candidates not holding a Master's degree must successfully complete at least 12 credit hours of graduate Chemistry courses with a minimum grade of B in addition to Chemistry 6002 and 6003.
5. Candidates are required to attend Departmental seminars.
6. Candidates must pass a comprehensive examination, as described in the **General Regulations**, consisting of a three-hour written part covering topics in a chosen branch of Chemistry and, subsequent to the written exam at the discretion of the comprehensive examination committee, an oral exam designed to explore areas of perceived deficiency.
7. Candidates must submit and successfully defend a thesis deemed acceptable by two internal and one external examiner as outlined in the **General Regulations**.

Courses

6002 Doctoral Seminar
6003 Doctoral Research Seminar
6110 Analytical Chemistry II
6150 Advanced Spectroscopic Techniques
6151 Analytical Separations and Organic Mass Spectrometry
6152 Electroanalytical Techniques
6153 Techniques in Sampling, Trace Analysis and Chemometrics
6154 Business Management and Good Laboratory Practice
6155 Computers in Instrumental Analysis and Basic Electronics (Same as Med 6070)
6160 Laboratory Projects in Sampling, Electroanalysis and Trace Analysis
6161 Laboratory Projects in Analytical Separations and Spectroscopic Techniques
6190-9 Selected Topics in Analytical Chemistry
6201 Bioinorganic Chemistry

6202 Main Group Chemistry
6204 Mechanisms in Catalysis
6205 Photochemistry of Transition Metal Complexes
6210 Organometallic Chemistry
6290-9 Selected Topics in Inorganic Chemistry
6300 Quantum Chemistry I
6301 Quantum Chemistry II
6302 Molecular Spectroscopy
6304 Computational Chemistry I
6310 Electronic Structure Theory
6323 Chemical Thermodynamics I
6324 Chemical Thermodynamics II
6350 Electrochemical Kinetics
6360 Solid State Chemistry
6380 Adsorption on Surfaces
6381 Surface and Interface Science
6390-9 Selected Topics in Physical Chemistry
6401 Organic Spectroscopic Analysis I
6402 Organic Spectroscopic Analysis II
6421 Natural Products Chemistry
6460 Organic Synthesis
6470 Physical Organic Chemistry
6490-9 Selected Topics in Organic Chemistry
6600 Applications of Inorganic and Organometallic Chemistry to Toxicology

25.5 Cognitive and Behavioural Ecology Program

Administrative Committee

Dr. Rita Anderson (Psychology)
Dr. Edward Miller (Biology)
Dr. William Montevecchi (Psychology)
Dr. Paul Snelgrove (Biology)
Dr. Anne Storey (Psychology) - Chair
Dr. Ian Warkentin or Dr. David Brombeck (Grenfell College)
One Graduate Student from the Program

25.5.1 Program

1. The Cognitive and Behavioural Ecology Graduate Program focuses on interdisciplinary animal behaviour research. Research integrates mechanistic, developmental, evolutionary and ecological perspectives on behaviour through molecular, individual and population levels of analysis. Supervisors include faculty from the Departments of Biology, Psychology and the Ocean Sciences Centre, the Faculty of Medicine and the Environmental Science Program at Sir Wilfred Grenfell College, as well as adjunct faculty from the Canadian Wildlife Service, Department of Fisheries and Oceans, the Newfoundland and Labrador Forestry and Wildlife Divisions and Parks Canada. The Departments of Biology and Psychology jointly offer the Master of Science and the Doctor of Philosophy degrees in Cognitive and Behavioural Ecology.
2. The Administrative Committee is responsible for the Program. Committee members are appointed by the Dean of Science, on the recommendation of the Chair of the Committee and of the Heads of Biology and Psychology. The Committee chair is elected by the committee members and appointed by the Dean of Science. The Committee makes recommendations to the Dean of Graduate Studies concerning admissions and academic requirements. In consultation with supervisors, recommendations are made concerning course programs, financial support, thesis committees, comprehensive and thesis topics and examiners, students' annual progress. Upon program completion, the Committee certifies that all requirements for the appropriate degree have been met. The department of the supervisor ensures that adequate facilities are provided for each candidate. Students in Cognitive and Behavioural Ecology are considered for teaching assistantships in the Psychology or Biology Departments.

25.5.2 Regulations - Doctor of Philosophy

1. There are no required courses for the doctoral program. However, the Doctoral Seminar (CABE 6992) and/or other courses tailored for individual students may be included in the student's program by the Dean of Graduate Studies on the recommendation of the Chair of the Committee.
2. The comprehensive examination should be taken during the first year of the program. An Examination Committee will be struck in accordance with **General Regulations**. At least one member of the Department of Biology and of the Department of Psychology (other than the Supervisor) must be on the Examination Committee. The candidate's Supervisor will be on the Examination Committee and will be the only examiner from the candidate's Thesis Supervisory Committee. The Head of the Department of the Supervisor of his/her delegate is invited to serve on the Comprehensive Examination Committee. The Examination Committee is chaired by the Chair of the Cognitive and Behavioural Ecology Committee. The examination will include a comprehensive, integrative review paper on a research topic in Animal Behaviour. The review topic is assigned by the Examination Committee, which also determines the submission date for the paper, and the date of the examination. Normally, the student will write the paper in four months, and the oral examination will occur within six weeks of the paper's submission. This paper will form the basis of a public seminar. The Examination Committee will question the candidate about the paper, the topic and its broader relationship with Cognitive and Behavioural Ecology.

Courses

Biology 7220 Quantitative Methods in Biology
Cognitive and Behavioural Ecology 6240 Special Topics
Cognitive and Behavioural Ecology 6350 Behavioural Ontogeny
Cognitive and Behavioural Ecology 6351 Behavioural Ecology and Sociobiology
Cognitive and Behavioural Ecology 7000 Field and Lab Methods in Animal Behaviour and Behavioural Ecology
Psychology 6000 Advanced Statistics in Psychology

Table of Course Restrictions (Credit may be obtained for only one course from each of the pairs of courses listed in the table.)

Present Course	Former Course
CABE 6240	Biopsychology 6240
CABE 6350	Biopsychology 6350
CABE 6351	Biopsychology 6351
CABE 7000	Biopsychology 7000

25.6 Computer Science

Professor and Head of the Department
W. Banzhaf

The degrees of Master of Science and Doctor of Philosophy are offered in Computer Science.

25.6.1 Doctor of Philosophy

1. Admission into the Ph.D. program in Computer Science is normally restricted to candidates holding a Master's degree (or equivalent) in Computer Science or a closely related area. Others may be considered for admission. See **Qualifications for Admission** of the **General Regulations**. International applicants are strongly encouraged to submit results of the (general) Graduate Record Examination (GRE) Test.
2. Each candidate for the Ph.D. shall complete a program of graduate courses prescribed by the supervisory committee. The normal minimum will be 9 credit hours.
3. The candidate shall take the Comprehensive Examination within the time limits specified in **Comprehensive Examinations** of the **General Regulations**. Students should consult the departmental guidelines for a detailed description of the content of the Comprehensive Examination.
4. The Ph.D. degree program will conclude with an oral defence of the thesis as described in **Theses and Reports** of the **General Regulations**.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

Programming Languages
6711 Syntax and Semantics of Programming Languages
6712 Compiling Techniques
6713 Software Engineering
6714 Functional Programming
6715 Logic Programming
6716 Concurrent Programming
6718-6719 Special Topics in Programming Languages

Computer Systems
6720 Distributed and Parallel Computing
6721 Operating Systems Design
6722 Advanced Computer Architectures
6723 Microprocessor Systems
6724 VLSI Design (same as Engineering 9863)
6725 Computational Aspects of VLSI (same as Engineering 9864)
6726 Modelling and Analysis of Computing Systems
6727 Introduction to High Performance Computer Systems
6728-6729 Special Topics in Computer Systems - Computer Networks

Numerical Computations
6731 Topics in Numerical Methods
6732 Matrix Computations
6738-6739 Special Topics in Numerical Methods

Theoretical Aspects
6741 Advanced Automata Theory
6742 Theory of Databases
6743 Complexity of Computational Problems
6745 Special Topics - Advanced Computational Geometry
6748-6749 Special Topics in Theoretical Computer Science

Applications
6751 Database Technology and Information Retrieval
6752 Applications of Computer Graphics
6753 Artificial Intelligence
6754 Post-Genomic Computational Biology
6755 Knowledge-Based Systems
6756 Digital Image Processing
6758-6769 Special Topics in Computer Applications
6770-6790 Special Topics in Computer Science

25.7 Earth Sciences

Professor and Head of the Department
J. H. Hanchar

The degrees of Master of Science and Doctor of Philosophy are offered in Earth Sciences (Geology) and Earth Sciences (Geophysics)

by full-time and part-time study.

25.7.1 Doctor of Philosophy

1. Admission into a Ph.D. program in Earth Sciences (Geology) and Earth Sciences (Geophysics) is normally restricted to candidates holding a Master's degree or its equivalent. Candidates holding B.Sc. (Honours) degrees who show evidence of exceptional ability may be considered for a direct entry into a Ph.D. program. In exceptional circumstances, a candidate with a B.Sc. (Honours) degree who has spent not less than 12 months in an M.Sc. degree program may be recommended for transfer into a Ph.D. program, provided that the candidate can demonstrate, to the satisfaction of the Department of Earth Sciences, his/her ability to pursue research at the doctoral level.
2. Prior to the date of first registration in the Ph.D. program, a candidate will meet with his/her Supervisory Committee. The purpose of this meeting is to draw up the candidate's program of study and research.
3. Within two weeks of first registration in the Ph.D. program candidates will normally take the Ph.D. Entry Evaluation. This requirement may be waived by the Dean of Graduate Studies, on the recommendation of the Head, for students who either hold a M.Sc. degree from Memorial University of Newfoundland or have a background that is already deemed satisfactory by the Supervisory Committee.
4. A candidate for the Ph.D. degree is normally required to complete 6 credit hours in addition to the credit hours required for the M.Sc. Degree. The courses must be selected from the overview and general courses below or with the approval of the supervisory committee and Head of Department, other graduate level courses including those offered by other departments. Depending on background and/or area of specialization, a candidate also may be required to complete additional courses in earth sciences or related subjects. All course requirements should be completed within 12 months from the date of the first registration in the Ph.D. program.
5. The Ph.D. Candidacy Examination consists of two parts: The Comprehensive Examination and the Thesis Proposal Examination. The candidate shall normally take these examinations not later than one year from the date of first registration in the Ph.D. program.

   Note: *Detailed descriptions of the Ph.D. Entry Evaluation and the Ph.D. Candidacy Examination are available upon request from the general office of the Department of Earth Sciences.*
6. The Ph.D. degree program will conclude with a thesis examination and an oral defence of thesis as prescribed in the **General Regulations**.
7. The Supervisor and the Head of the Department may recommend to the Dean of Graduate Studies that a candidate who is not making satisfactory progress be required to withdraw from the program.
8. A candidate is required to give an oral presentation to the Department on the results of his/her research. This presentation must be given during the second or third year of the program.

Courses

A selection of courses will be offered to meet the requirements of candidates as far as the resources of the Department will allow.

Overview Courses

7110 Physics of the Solid Earth
7120 Crustal Geophysics
7300 Changes in Global Paleoenvironment
7400 Tectonic Regimes
7410 Engineering & Environmental Geology
7500 Chemical Fluxes in the Earth
7810 Paleoecology (same as former 6810. Credit may be obtained for only one of 7810 or 6810)

General Courses

6070 Quantitative Techniques in Mineralogy and Metamorphic Petrology
6141 Rotation of the Earth
6142 Theory of Global Geodynamics
6152 Paleomagnetism
6171 Advanced Exploration Seismology
6172 Borehole Seismic
6175 Gravity and Magnetic Methods
6177 Mathematical Formulations of Seismic Wave Phenomena
6210 Genesis of Mineral Deposits
6320 Marine Geology
6400 Flow and Transport in Fractured Rock
6410 Advanced Engineering and Environmental Geology
6420 Deformation Mechanisms
6500 Stable Isotope Geochemistry
6510 Trace Element Geochemistry
6520 Methods in Advanced Research in Geochemistry
6540 Radiogenic Isotope Geochemistry
6550 Biogeochemistry
6600 Petroleum Geology
6740 Modern and Ancient Sedimentary Environments
6750 Sequence Strategraphy
6820 Palynology and Paleobotany
6990-6999 Special Topics in Earth Sciences

25.8 Education

Professor and Dean

A. Collins

Associate Professor and Associate Dean

T. Seifert

The degrees of Master of Education and Doctor of Philosophy are offered in Education.

The degree of Doctor of Philosophy in Education is offered to qualified candidates, normally by full-time study. The **General Regulations** of the School of Graduate Studies of Memorial University of Newfoundland outlined in the current Calendar, and the Degree Regulations of the Faculty of Education outlined below will apply.

25.8.1 Admission to the Ph.D. Program

General qualifications for admission to the Ph.D. Programs at Memorial University of Newfoundland are set out in the University Calendar under School of Graduate Studies, General Regulation **Qualifications for Admission, Ph.D. Program**.

In addition, the following admission requirements apply:

1. an "A" standing in a Master's degree in Education or in an equivalent Master's degree from an accredited university;
2. evidence of scholarly work, such as a master's thesis, directed research project, or qualifying research paper;
3. normally, completion of two years of professional experience in an educational setting.

25.8.2 Supervisory Committee

Each candidate will have a supervisory committee comprised of a minimum of three members, at least two of whom shall be members of the Faculty of Education. The thesis supervisor shall be a faculty member in the Faculty of Education, Memorial University of Newfoundland.

25.8.3 Components of Study

1. Courses
   a. Students are required to successfully complete two courses on the doctoral program.

      Education 7001 - Doctoral Seminar in Education: Area of Specialization

      Education 7002 - Advanced Educational Research

   b. Based on a consideration of educational background and research interest, students may be required to complete (or have completed at the masters level) as many as two (2) additional courses in research related to their program focus and specialty.
   c. Normally, no more than four courses may be undertaken on a candidate's program.
   d. Education 7003-30 - Special Topics (offered as required).
2. Comprehensive Examination

   The candidate shall undertake a written and an oral comprehensive examination, which will follow General Regulation **Comprehensive Examinations, Ph.D. Comprehensive Examination** which sets out the procedures for the comprehensive examination.

   a. A candidate in a Ph.D. program in Education shall normally take the written Comprehensive Examination prior to the seventh semester of the program. The candidate will have completed required courses prior to taking the Comprehensive Examination. In preparation for the Comprehensive Examination, the doctoral candidate, with the guidance of the candidate's supervisor, will undertake study of the sub-disciplines/areas of concentration identified by the candidate and supervisory committee and approved by the Doctoral Committee. Normally, these will include the candidate's area of concentration and two additional sub-disciplines/areas of concentration.
   b. Such study of sub-disciplines will normally include but not be limited to developing a reading list of important historical and current publications within the sub-disciplines, identifying emerging research emphases within the sub-disciplines, and writing scholarly review papers of these publications.
   c. In preparation for the written comprehensive examination, the doctoral candidate and the supervisory committee will agree on the topics to be examined. The examination will be written over a two day period.
   d. Normally, the oral comprehensive examination will occur within six weeks of the written examination, which if judged to be successful by the Comprehensive Examination Committee, will form the basis of an oral comprehensive examination.
   e. The procedure for scheduling the Comprehensive Examination shall be initiated by the candidate's supervisor who will notify, in writing, the Dean of Education of the candidate's readiness. The date of both the written examination and the oral examination will be determined by the Dean of Education. The candidate will receive a written notice of the scheduled date for both examinations from the Dean of Education.
   f. The Comprehensive Examination Committee shall be appointed by the Dean of Graduate Studies in accordance with School of Graduate Studies General Regulation **Comprehensive Examination, Ph.D Comprehensive Examination** on the recommendation of the Dean, Faculty of Education. There will be six members of the Comprehensive Examination Committee as follows:

      Dean of Education or delegate (Chair)
      Chair of the Doctoral Committee of the Faculty Council of Education
      Candidate's supervisor
      Second member of candidate's supervisory committee
      Dean of School of Graduate Studies or delegate (nonvoting)
      Member of the Faculty of Education or educational community selected by the Dean of Education.

      In the event that the Chair of the Doctoral Committee is the candidate's supervisor, the Dean of Education shall appoint an additional member.
3. Ph.D. Thesis Regulations
   a. The candidate must submit a thesis proposal based on his/her own research interest to all members of the Supervisory Committee for critical evaluation. Normally, the proposal must be approved prior to the eighth semester of the program. The Chairperson of the Supervisory Committee will inform the candidate within one month of its acceptance, rejection, or acceptance with recommended changes.
   b. If the proposal is not acceptable, the candidate will normally be permitted a second attempt. The revised proposal must be submitted and deemed acceptable by the Supervisory Committee within a semester. Failure to resubmit within this time period will lead to termination of the candidate's program.
   c. The thesis shall give evidence of the candidate's ability to carry out independent and original research, develop the necessary theoretical and methodological framework and analyses, and present the findings in a scholarly manner.
   d. Each candidate will be required to present a seminar on her/his thesis research to the Faculty.
   e. Ph.D. program will conclude with the examination and oral defence of the completed thesis in accordance with the appropriate sections of the General Regulation **Theses and Reports, Evaluation of Ph.D. Theses** governing the School of Graduate Studies.

Courses
7001 Doctoral Seminar in Education: Area of Specialization
7002 Advanced Educational Research
7003-30 Special Topics

25.9 Engineering and Applied Science

Professor and Dean
R. Gosine

Professor and Associate Dean (Graduate Studies and Research)
R. Venkatesan

The degree of Doctor of Philosophy is offered in the Faculty of Engineering and Applied Science and may be obtained either through full-time or part-time studies. The Ph.D. degree can be obtained through programs in the following disciplines: Civil Engineering, Electrical and Computer Engineering, Mechanical Engineering, Ocean and Naval Architectural Engineering, and the multidisciplinary area of Oil and Gas Engineering. At present, the following interdisciplinary research areas are active in the Faculty: Engineering Analysis; Environmental and Hydrotechnical Studies; Manufacturing and Robotics; Mechanics, Structures, and Materials; and Ocean Engineering. The interdisciplinary area of Ocean Engineering has been and continues to be a major strength for graduate studies and research in the Faculty of Engineering and Applied Science.

25.9.1 Qualifications for Admission

Admission to the Ph.D. program is limited and competitive. All applicants must meet the minimum qualifications described in the **General Regulations** for the School of Graduate Studies. Admission is normally restricted to candidates holding a Master's degree in Engineering or a related area. Decisions on admission, however, will also take into account such things as the applicant's rank in class, referees' assessments, general performance throughout the applicant's previous academic programs, and the availability of supervisors in the area of the applicant's interest. In cases of demonstrated ability, a student enrolled in the M.Eng. program may be allowed to transfer to the Ph.D. program without the completion of all the M.Eng. degree requirements. As well, in exceptional cases, direct entry to the Ph.D. program, after completion of a Bachelor's degree in Engineering or a related area, is possible.

Normally, applicants will be considered in January for admission for the following September. In special cases, applicants may also be considered in April and August. Applications should be made sufficiently far in advance to permit the University to obtain all relevant documents and review the application.

25.9.2 Program of Study and Research

A Ph.D. program shall normally consist of three components:

1. a minimum of 6 credit hours consisting of graduate courses recommended by the student's supervisory committee
2. a comprehensive examination as detailed in **Regulations for Ph.D Comprehensive Examination**.
3. a thesis satisfying the requirements of the **General Regulations** for the School of Graduate Studies.

In cases of direct entry after a Bachelor's degree or promotion from a Master's program before fulfilment of the Master's course requirements, it is likely that the student will be required to take more credit hours than the normally required minimum. In such cases, the requirements for the course component of the student's program will be reviewed on an individual basis by the student's supervisory committee and the Dean of the Faculty of Engineering and Applied Science.

25.9.3 Regulations for Ph.D. Comprehensive Examination

Part I - Timing of Examination

A candidate registered in a Ph.D. program in the Faculty of Engineering and Applied Science shall normally take the Comprehensive Examination during the first year of the program.

Part II - Composition of the Examination Committee

The Examination Committee shall be appointed by the Dean of Graduate Studies on the recommendation of the Dean of Engineering and Applied Science. It shall consist of:

1. The Dean of Engineering and Applied Science (or delegate) who shall be the Chair and a voting member.
2. The Dean of Graduate Studies or delegate.
3. Four additional voting members nominated by the Faculty of Engineering and Applied Science. The candidate's Supervisor and not more than one other from the Supervisory Committee shall be among the nominated members of the Examination Committee.

Part III - Content of Comprehensive Examination

The Comprehensive Examination for Ph.D. candidates shall consist of two parts, a research examination and a general examination.

1. Research Examination

   The candidate will provide a written submission to the Examination Committee outlining the proposed research program. In this brief, the candidate must demonstrate an acceptable understanding of the proposed research and indicate the availability of the facilities necessary to carry out the work.

   The Comprehensive Examination Committee shall examine the candidate orally on any or all aspect(s) of the research proposal.

2. General Examination

   Within two weeks after the Research Examination the candidate shall submit to another oral examination by the same Committee. The candidate will be expected to demonstrate a mastery of the subdisciplines of engineering as defined in General Regulation **Comprehensive Examinations, Ph.D. Comprehensive Examination**, 3.

   At least one week in advance of the first oral examination, the Chair of the Examination Committee will issue a notice to faculty and graduate students in the Faculty of Engineering and Applied Science, notifying the date and place of the examinations. Both oral examinations shall be open. After the candidate has been examined by the Examination Committee, others in the audience will be given an opportunity to question the candidate.

   At the conclusion of the public portion of the oral examination, the Committee may meet in private to further question the candidate and may ask the candidate to appear for a written examination on specified topics within 14 days after the general oral examination. The candidate shall be given at least 7 days notice before such written examination.

   The Examination Committee will meet *in camera* to arrive at its recommendations. After the Committee has considered the

candidate's performance on all portions of the examination, the Chair shall report the result of the examination to the Dean of Graduate Studies. The report will be in accordance with General Regulation **Comprehensive Examinations, Ph.D. Comprehensive Examination**.

25.9.4 Courses

For a list of graduate courses offered by the Faculty of Engineering and Applied Science refer to the list of "Core Courses" and the list of "Other Courses" offered for the Master of Engineering program.

25.10 English Language and Literature

Associate Professor and Head of the Department
R. Hollett

The degrees of Master of Arts and Doctor of Philosophy are offered in English Language and Literature.

Candidates for the M.A. in English may complete the program as either part-time or full-time students. Candidates for the Ph.D. in English must be in attendance as full-time students for at least three semesters of the program.

25.10.1 Doctor of Philosophy

1. Admission to the Ph.D. in English is limited and competitive. Applicants should have a Master's degree in English or its equivalent from a recognized university and should have an outstanding academic record.
2. All candidates will be required to complete 15 credit hours in graduate courses. These courses will be selected by the candidate in consultation with the candidate's Supervisory Committee.

   While candidates will normally be free to choose graduate courses of interest to them, it will be a primary responsibility of their Supervisory Committees to ensure that any serious deficiencies in their record of previous courses, graduate and undergraduate, are remedied, particularly in the area of proposed thesis research.
3. Candidates who have not previously taken English 7003 or its equivalent will take English 7003, which will count as one of the required courses for the Ph.D. Students who have taken English 7003 or its equivalent before entering the Ph.D. program must still complete 15 credit hours.
4. Candidates who have not completed English 4900 or English 5900 or an equivalent course will be required to complete English 5900, which will not count as one of the required courses for the Ph.D. The course will be graded "pass" or "fail". As in other graduate courses a grade of 65B or above is considered a pass.
5. Candidates must submit a thesis proposal which includes a statement of topic, a working title, a plan of research, and a preliminary bibliography. The thesis proposal should be approved by the Supervisory Committee and submitted to the departmental Graduate Studies Committee for its approval before the Comprehensive Examination and before the end of the fifth semester. The departmental Graduate Studies Committee shall return the thesis proposal to the candidate no later than one month after receiving it.
6. Reading knowledge of a second language will be required of all candidates. Reading knowledge is defined as a minimum B grade in a second-year language course taken within the previous five years, a passing grade in an approved second-language course for graduate students, or performance satisfactory to the Department in an arranged reading proficiency test (in which a dictionary may be used).

   The language requirement should be completed before the Comprehensive Examination is taken.

   The second language will normally be French. In exceptional circumstances, and on the recommendation of the Supervisory Committee and the departmental Graduate Studies Committee, a language other than French may be substituted.

   The Supervisory Committee may also require a demonstrated reading knowledge of an additional language (other than French or the substituted language) if such knowledge is deemed necessary for the student's research interests.
7. The Ph.D. Comprehensive Examination in English is a written examination prepared by the candidate's Comprehensive Examination Committee.

   In accordance with General Regulation **Comprehensive Examinations, Ph.D. Comprehensive Examination**, the candidate's Comprehensive Examination Committee will include the Head (or the Head's delegate, usually the Graduate Co-ordinator), the candidate's supervisor, and three other members of the Department.

   The written examination shall consist of three parts: a four-hour examination in the student's area of concentration and two three-hour examinations in two other specified areas. In accordance with General Regulation **Comprehensive Examinations, Ph.D. Comprehensive Examination**, the examination shall take place before the end of the seventh semester.

   Candidates will be graded "pass with distinction", "pass", "re-examination", or "fail", in accordance with General Regulation **Comprehensive Examinations, Ph.D. Comprehensive Examination**, 4. Candidates who are marked for "re-examination" will be re-examined in the area or areas in which the Comprehensive Examination Committee has determined that the candidate's performance is deficient. The nature of this re-examination (and whether it will be written or oral) is left to the discretion of the Comprehensive Examination Committee.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow.

Notes:
1. *Since it is impossible to list in detail the many topics that may from time to time be offered, the titles below refer only to the major periods and general subject areas in which specific courses may be available. The content and approach in specific courses will vary according to the research interests of students and faculty involved in the course. Students should consult the Department's annual Graduate Student Guide (or the Graduate Co-ordinator) for detailed descriptions of specific course offerings. Normally, no fewer than 30 credit hours in graduate courses are offered in any given academic year.*
2. *English 5900 cannot be counted as one of the required graduate courses in any program.*
3. *All students will normally take English 7003 - Trends in Contemporary Literary Theory, usually in their first semester.*
4. *Students who took graduate courses in English at Memorial University of Newfoundland before 1997 should consult with the Department before selecting further courses.*

5900 Bibliography and Research Methods
6403 Etymology (same as Linguistics 6403)
6420 English Dialectology I
6421 English Dialectology II
6999 Master's Essay (for non-thesis students)

7003 Trends in Contemporary Critical Theory
7004 English Phonology and Morphology
7005 The Syntactic Structure of English
7032 Studies in Old English I
7033 Studies in Old English II
7034 Studies in Middle English I
7035 Studies in Middle English II
7036 Studies in Middle English III
7037 Studies in 16th-Century Literature I
7038 Studies in Old English II
7039 Studies in 16th-Century Literature III
7040 Studies in 16th-Century Literature IV
7041 Studies in 17th-Century British Literature I
7042 Studies in 17th-Century British Literature II
7043 Studies in 17th-Century British Literature III
7044 Studies in 17th-Century British Literature IV
7045 Studies in 18th-Century British Literature I
7046 Studies in 18th-Century British Literature II
7047 Studies in 18th-Century British Literature III
7048 Studies in 18th-Century British Literature IV
7049 Studies in 19th-Century British Literature I
7050 Studies in 19th-Century British Literature II
7051 Studies in 19th-Century British Literature III
7052 Studies in 19th-Century British Literature IV
7053 Studies in 20th-Century British Literature I
7054 Studies in 20th-Century British Literature II
7055 Studies in 20th-Century British Literature III
7056 Studies in 20th-Century British Literature IV
7057 Studies in Pre-19th Century American Literature
7058 Studies in 19th Century American Literature I
7059 Studies in 19th-Century American Literature II
7060 Studies in 19th-Century American Literature III
7061 Studies in 20th-Century American Literature I
7062 Studies in 20th-Century American Literature II
7063 Studies in 20th-Century American Literature III
7064 Studies in 20th-Century American Literature IV
7065 Studies in Pre-19th Century Canadian Literature
7066 Studies in 19th-Century Canadian Literature I
7067 Studies in 19th-Century Canadian Literature II
7068 Studies in 19th-Century Canadian Literature III
7069 Studies in 20th-Century Canadian Literature I
7070 Studies in 20th-Century Canadian Literature II
7071 Studies in 20th-Century Canadian Literature III
7072 Studies in 20th-Century Canadian Literature IV
7073 Studies in Newfoundland Literature I
7074 Studies in Newfoundland Literature II
7075 Studies in Newfoundland Literature III
7076 Studies in Anglo-Irish Literature I
7077 Studies in Anglo-Irish Literature II
7078 Studies in Modern Drama
7079 Studies in Post-Colonial Literature I
7080 Studies in Post-Colonial Literature II
7081 Studies in Post-Colonial Literature III
7082 Studies in Critical Theory I
7083 Studies in Critical Theory II
7084 Studies in Critical Theory III
7085 Special Readings in English I
7086 Special Readings in English II
7087 Special Readings in English III
7020-25 Special Topics in English

25.11 Ethnomusicology

Professor and Director of the School of Music
T. Gordon

Associate Professor and Program Co-ordinator
K. Szego

The Doctor of Philosophy program in Ethnomusicology is administered by the School of Music in consultation with the Department of Folklore, and generally in response to recommendations from an Interdisciplinary Advisory Committee with representation from both academic units, chaired by the Program Co-ordinator.

The degree of Ph.D. in Ethnomusicology is offered by part-time and full-time study. This program is a research degree, generally involving extended fieldwork. The resources of the Memorial University of Newfoundland Folklore and Language Archive are available to graduate students in Ethnomusicology.

25.11.1 Qualifications for Admission

Applicants may be admitted to the program if they have at least a B+ average in a M.A. degree in Ethnomusicology, another field of Music, or other relevant discipline in the Humanities or Social Sciences with evidence of specialization in music. Applicants from a discipline other than Music will be expected to demonstrate the following skills:

- Competent performance in any musical tradition, as judged by a musician knowledgeable about that tradition.

- Knowledge of culturally appropriate language for discussion of performance techniques in that tradition.
- Ability to discuss musical details on the basis of aural and/or written sources, as appropriate to that tradition.

Candidates for admission may, at the discretion of the Interdisciplinary Advisory Committee, be required to write diagnostic examinations measuring skills and knowledge in music literacy, theory, or aural perception. Candidates with deficiencies in any of these areas may be required to take remedial course work prior or in addition to the required program.

Upon completion of M.A. course work, students who have attained an A average may wish to be considered for transfer to the Ph.D. program. Students who seek this option must apply to the Interdisciplinary Advisory Committee to be considered for transfer one month prior to the completion of their M.A. courses or by the end of the 5th semester. (see General Regulation **Qualifications for Admission, Master's Program**).

25.11.2 Program Requirements

The Ph.D. program may be completed within twelve to fifteen consecutive semesters of full-time study, depending on fieldwork requirements. The degree is normally taken by completing course work, comprehensive examinations, a language proficiency requirement, and a Ph.D. thesis, defended in accordance with General Regulation **Theses and Reports** of the School of Graduate Studies.

1. Students must complete a minimum of 21 credit hours of course work. If required courses have been completed at the M.A. level, electives may be substituted (with approval of the Interdisciplinary Advisory Committee). The required courses are:
   a. Music 8001; Folklore 6010, 6030.
   b. ONE of Music 6002 or Folklore 7100.
   c. Nine credit hours of electives selected from courses listed below or from relevant courses offered in another discipline (with the approval of the Interdisciplinary Advisory Committee). Ph.D. students may take up to two courses (6 credit hours) in a cognate discipline.
   d. Reading proficiency in one language other than English, relevant to the research area, demonstrated to the satisfaction of the Interdisciplinary Advisory Committee. The choice of language must be approved by the Interdisciplinary Advisory Committee. The language exam should normally be completed before the comprehensive exams.
2. Comprehensive examinations will be administered in a major area, minor area, and theoretical/interdisciplinary area; a component of the comprehensive examination will test audio-visual skills. Bibliographies and discographies for several focused topics will be developed by the student in consultation with his/her supervisory committee and will be the basis of examination questions. The written portion of the examination will be scheduled over a one-week period. An oral defence of the written essays will be scheduled normally within one month following the completion of the written examination. (See General Regulation **Comprehensive Examinations, Ph.D. Comprehensive Examination**).
3. Students must complete a thesis, examined and defended in accordance with General Regulation **Theses and Reports** of the School of Graduate Studies. A thesis proposal, including a working title, statement of purpose and research scope, outline of theoretical and methodological approach, working plan, and preliminary bibliography, together with proposed membership of the supervisory committee, must be submitted to the Interdisciplinary Advisory Committee no later than the fifth semester of study. The thesis shall demonstrate the candidate's ability to carry out original and independent research, develop the necessary theoretical and methodological framework, and present the findings in a scholarly manner.

Courses

Theories and Methods:
Music 6001 Research Methods
Music 6002 Graduate Seminar
Music 7001 Research Problems and Methods in Ethnomusicology
Music 8001 Theoretical Issues in the Study of Music
Folklore 6010 Survey of Folklore Genres and Processes
Folklore 6020 Field and Research Methods
Folklore 6030 Folklore Theories
Folklore 6040 Feminist Theories: Perspectives and Issues
Folklore 6080 Vernacular Theories
Folklore 6090 Ethnology
Folklore 7100 Advanced Folkloristics II: Research and Ethnography

Form and Performance:
Music 7005 Performance Option
Folklore 6100 Song and Music
Folklore 6120 Ballad
Folklore 6130 Folk Music Canons and Documentary Sound Recordings
Folklore 6200 Folktale
Folklore 6210 Legend
Folklore 6220 Personal Experience Narrative
Folklore 6250 Language and Play
Folklore 6260 Ethnography of Communications
Folklore 6300 Ethnography of Belief
Folklore 6310 Health Systems
Folklore 6350 Custom
Folklore 6360 Traditional Drama
Folklore 6400 Material Culture
Folklore 6410 Vernacular Architecture
Folklore 6420 Art and the Artifact
Folklore 6430 Food and Culture
Folklore 6720 Folklore and Literature

Area and Genre Studies:
Music 7010 World Music: Music of Asia and Oceania
Music 7011 World Music: Music of Africa and the Americas
Music 7012 Canadian Musical Traditions
Music 7013 Music and Culture
Music 7017 Folksong
Music 7018 Jazz and Blues: The Roots of Popular Music

Folklore 6120 Ballad
Folklore 6600 Folklore of Newfoundland
Folklore 6610 Folklore of Canada
Folklore 6620 Folklore of the United States
Folklore 6630 Folklore of the British Isles
Folklore 6770 The Global and the Local

Social Identities:
Music 7006 Urban Ethnomusicology
Music 7007 Music in the Study of Gender, Race and Class
Music 7009 Music and Place
Folklore 6510 Occupational Folklore
Folklore 6551 Indigenous Expressive Cultures in Cross-cultural Encounter
Folklore 6730 Folklore and Gender
Folklore 6780 Ethnicities

Independent Study:
Music 7026-29 Directed Reading in Ethnomusicology
Folklore 6570-79 Reading Course in Folklore

Special Topics:
Music 6800-09 Special Topics in Music
Music 7800-09 Special Topics in Music
Folklore 6511-29 Special Topics in Folklore
Folklore 6570-79 Reading Course in Folklore

Public and Applied Ethnomusicology and Folklore:
Music 6700 Music Industries Seminar
Music 6750 Music Industries Internship (2 cr. hrs.)
Folklore 6740 Public Sector Folklore
Folklore 6760 Archiving
Folklore 6790 Museums: Perspectives and Practices
Folklore 6800 Applied Folklore

Interdisciplinary Perspectives:
Music 7008 Media Studies
Folklore 6700 Folklore and Culture
Folklore 6710 Oral Tradition and Oral History
Folklore 6750 Popular Culture: Theory and Debate

25.12 Folklore

Associate Professor and Head of the Department
M. Lovelace

The degree of Doctor of Philosophy in Folklore is offered by part-time and full-time study and is primarily a research degree. The program normally requires extensive fieldwork research in Newfoundland and/or the Maritimes.

Integral to the teaching of the Department of Folklore is the work of the Memorial University of Newfoundland Folklore and Language Archive; see section under Master of Arts, Folklore.

25.12.1 Doctor of Philosophy

1. An applicant for admission to the Ph.D. program in Folklore must hold an M.A. degree in Folklore, or its equivalent as determined by the Head of the Department and the Dean.
2. All Ph.D. students in the Folklore program must complete *at least* 18 credit hours in program graduate courses which shall include Folklore 7000 and 7100. Candidates will normally be free to choose graduate courses of interest to them in Folklore or related disciplines, though it will be a primary responsibility of their committees to ensure that any serious deficiencies are made good. At the end of the second semester the program and further status of the candidate will be reviewed.
3. Second Language Requirements:
   a. All Ph.D. candidates are required to demonstrate an adequate reading knowledge of a second language - normally a common, modern language.
   b. Reading knowledge is defined as a minimum B grade in a second-year language course taken within the previous five years, or performance satisfactory to the department in an arranged reading proficiency test.
   c. The selection of a second language can be based on the student's research requirements.
   d. The selection of a second language must be made in consultation with the student's faculty advisor or supervisor. Confirmation that the choice is acceptable must be obtained from the Department.
   e. The language requirement must normally be fulfilled before a student takes the Ph.D. Comprehensive Examination.
4. Comprehensive Examination for the Ph.D.:
   a. The Ph.D. Comprehensive Examination shall be administered in accordance with General Regulation **Comprehensive Examination**. The examination may be oral, written, or both, and shall consist of three sessions, each of three hours' duration, within a one-week period. The examination will deal with all areas of folklore and folklife scholarship;
   b. The examination can be taken only upon completion of the second language requirements and no earlier than the end of the first year after admission to candidacy but not later than one year after the completion of the program courses. The examination will normally be scheduled in the third week of March or of November.
5. Ph.D. Thesis:
   a. The candidate will normally submit a thesis proposal based on his/her own interests no later than the end of the fourth semester of the program. The thesis proposal will include a working title, names of preferred Supervisor and two other committee members, statement of topic, plan of research, statement of methodological and theoretical approach, a brief review of the literature and a preliminary bibliography. The proposal will be circulated to the Department for critical evaluation on the basis of which the candidate will be informed, within one month, by the Supervisor, of its acceptance, rejection, or acceptance with

recommended changes.

b. The thesis shall give evidence of the candidate's ability to carry out independent and original research, develop the necessary theoretical and methodological framework and present the findings in a scholarly manner.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, normally after consultation with the Head of the Department or the Graduate Studies Administrator, and as far as the resources of the Department will allow. Courses are structured according to the categories of: Theories and Methods, Issues, Form and Performance, Special Topics, Regional National and International Heritage, Social Identities, Public and Applied Folklore and Interdisciplinary Perspectives and Required (Ph.D.):

Theories and Methods

6010 Survey of Folklore Genres and Processes
6020 Field and Research Methods
6030 Folklore Theories
6040 Feminist Theories: Perspectives and Issues
6080 Vernacular Theories
6090 Ethnology

Issues

6050 Issues in Folkloristics
6060 Issues in Folk Literature
6070 Issues in Folklife

Form and Performance

6100 Song and Music
6120 Ballad
6130 Folk Music Canons and Documentary Sound Recordings
6200 Folktale
6210 Legend
6220 Personal Experience Narrative
6250 Language and Play
6260 Ethnography of Communications
6300 Ethnography of Belief
6310 Health Systems
6350 Custom
6360 Traditional Drama
6370 Ritual, Festival and Public Display
6400 Material Culture
6410 Vernacular Architecture
6420 Art and the Artifact
6430 Food and Culture
6720 Folklore and Literature

Special Topics

6511-29 Special Topics in Folklore
6550 Special Research in Folklore
6551 Indigenous Expressive Cultures in Cross-Cultural Encounter
6552-69 Special Research in Folklore
6570-79 Reading Course in Folklore

Regional, National and International Heritage

6600 Folklore of Newfoundland
6610 Folklore of Canada
6620 Folklore of the United States
6630 Folklore of the British Isles
6640 Traditional Culture of Scotland
6650 Culture and Traditions of Ireland
6660 Folklore of the Francophone Regions
6690 International Folklore

Social Identities

6510 Occupational Folklife
6730 Folklore and Gender
6770 The Global and the Local
6780 Ethnicities

Public and Applied Folklore

6740 Public Sector Folklore
6760 Archiving
6790 Museums: Perspectives and Practices
6800 Applied Folklore

Interdisciplinary Perspectives

6700 Folklore and Culture
6710 Oral Tradition and Oral History
6750 Popular Culture: Theory and Debate

Required (Ph.D.)

7000 Advanced Folkloristics I
7100 Advanced Folkloristics II Research and Ethnography

Credit may not be obtained for both 6010 and the former 6110; 6020 and the former 6111; 6030 and the former 6112; 6100 and the former 6430; 6120 and the former 6445; 6300 and the former 6230; 6350 and the former 6230; 6400 and the former 6501; 6720 and the former 6460.

25.13 Food Science

See under Biochemistry

25.14 Geography

Professor and Head of the Department
K. Story

25.14.1 Doctor of Philosophy

1. To be admitted to the program, an applicant must have completed either a Master of Arts or a Master of Science degree, or its equivalent, in Geography or a related discipline. In exceptional circumstances, a candidate who has completed either a B.A. (Honours) or B.Sc. (Honours) degree, and who has spent not less than 12 months in a M.A. or M.Sc. degree program may apply for transfer into a Ph.D. program. A successful application for transfer will require that the candidate demonstrate to the satisfaction of the Department an ability to pursue research at the doctoral level.
2. The deadline for submission of applications for admission is January 15. Candidates will normally commence their programs in the Fall semester.
3. Research areas for graduate study at the Doctoral level are cultural and historical geography, economic geography, resource management, physical geography and geographic information sciences.
4. An applicant will be admitted to a doctoral program only if a faculty member agrees to act as supervisor, and at least two other individuals are willing to serve on the supervisory committee.
5. All candidates must successfully complete Geography 6000 if that course, or an equivalent course, has not been included in their Master's program. In addition, all candidates are required to successfully complete a minimum of 6 credit hours in graduate program courses.
6. The supervisory committee may decide that a candidate successfully completes an examination for reading or speaking a language other than English.
7. After the successful completion of all required courses, candidates must take a comprehensive examination which will have both a written and an oral component.
8. Following successful completion of the comprehensive examination the candidate will submit a written research proposal to the supervisory committee. The proposal must then be approved by the Committee prior to the commencement of research by the candidate.
9. Each candidate will be required to present a seminar on their research to the Department.
10. The Ph.D. program will conclude with the examination and oral defence of the completed thesis in accordance with the appropriate sections of the **General Regulations** governing the School of Graduate Studies.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates as far as the resources of the Department will allow:

6000 Development of Geographical Thought
6100 Research Techniques in A Selected Field of Geography I
6101 Research Techniques in A Selected Field of Geography II
6120 Spatial Pattern Analysis and Computer Mapping
6150 Environmental Remote Sensing and Image Analysis
6200 Economic Geography I: Location Theory
6201 Economic Geography II: Regional Development
6202 Economic Geography III: Problems in Transportation
6203 Economic Geography IV: Land Use Pattern Analysis
6250 Conservation of Natural Resources
6300 Problems in Fisheries Geography
6301 Methodologies of Fisheries Geography
6400 Fluvial Geomorphology
6401 Glacial Geomorphology
6403 Hydrology
6410 Climatology
6420 Chronologies in Physical Geography
6430 Biogeography
6500 Cultural Geography
6510 Ethic Group Settlement in the New World
6550 Population
6600 Historical Geography
6700 Political Geography
6800 Urban Geography
6801 Spatial Aspects of Urbanization and City System Development
6802 Internal Structure of Cities
6820 Cartographic Design
6830 Cartographic Production
6900 Graduate Seminar in Regional Geography
6990-95 Special Topics in Geography

25.15 Geology

See Earth Sciences

25.16 Geophysics

See Earth Sciences

25.17 History

Professor and Head of the Department
C. Youé

The degrees of Doctor of Philosophy and Master of Arts are offered in History by full-time or part-time study.

25.17.1 Doctor of Philosophy

1. The Ph.D. degree in History is offered in the following areas:
   a. Canadian History
   b. Maritime History
   c. Newfoundland History
2. An applicant must hold either a Master's degree in History or a Bachelor's degree in History with first-class Honours or their equivalents as determined by the Head of the Department and the Dean.
3. All candidates must successfully complete History 7000 and 7001 in the first year of the program. The Supervisory Committee may require the candidate to complete additional graduate courses.
4. All candidates must demonstrate in accordance with regulations established by the School of Graduate Studies a reading knowledge of French before taking the comprehensive examination. On the recommendation of the Supervisory Committee a modern language other than French may be substituted. In addition, the Supervisory Committee may require a demonstrated reading knowledge of a second language other than French or English (or the substitute language).
5. Candidates will undertake supervised reading in fields prescribed by the Department. The Supervisors of these programs of reading, along with the thesis Supervisor, will comprise the student's Supervisory Committee. This reading will prepare the student for the comprehensive oral examination.
6. Candidates must submit a thesis proposal, deemed acceptable by the Supervisory Committee, to the Department before sitting the comprehensive examination.
7. Candidates will normally sit the comprehensive oral examination in the second year of the program.
8. Interested applicants are urged to consult with the Head of the Department on these prerequisites and other requirements before filing an application for admission.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates as far as the resources of the Department will allow:

6000 Advanced Studies in Newfoundland History
6010 Advanced Studies in Canadian History
6020 Advanced Studies in the History of the United States
6030 Advanced Studies in French History
6040 Advanced Studies in British History
6050 Advanced Studies in German History
6060 Advanced Studies in North Atlantic History
6070 Advanced Studies in Social History
6075 Advanced Studies in Labour and Working Class History
6080 Advanced Studies in Intellectual History
6090 Advanced Studies in Women's History
6095 Advanced Studies in Ethnohistory
6100 Advanced Studies in Military History
6105 Advanced Studies in Diplomatic History
6110 Advanced Studies in Maritime History
6120 Advanced Studies in Economic and Business History
6125 Medical Science and Social Responsibility in Health Care: Aspects of Medical History (*Cross-listed as Medicine 6420*)
6130 Quantification and Measurement in History
6140-59 Research in Special Topics
6160-79 Reading Courses (Special Topics)
6180 Seminar in Historiography
6200 Masters Seminar I
6210 Sources, Methods and Criticism: Practising History
6999 Masters Research Paper (9 credit hours)
7000 Ph.D. Seminar I
7001 Ph.D. Seminar II

25.18 Linguistics

Associate Professor and Head of the Department
M. Mackenzie

The degrees of Master of Arts and Doctor of Philosophy are offered in Linguistics.

25.18.1 Doctor of Philosophy

1. The degree of Doctor of Philosophy is offered in the following areas:
   a. Languages in which the Department has demonstrated expertise, especially languages of the Newfoundland and Labrador Area.
   b. Historical and Comparative Linguistics.
   c. Language Variation and Language Contact.
2. In order to be admitted to the Ph.D. in Linguistics, a student shall normally hold a Master's degree in Linguistics. In the case of a student who does not meet the above requirement but who holds a language-oriented Master's degree, a program of additional linguistics courses, supplementary to those normally considered to be required in the Ph.D. program, may be required.
3. The program of each candidate must be approved by the Dean of Graduate Studies upon the recommendation of the Supervisory Committee in consultation with the Head of the Department.

4. Candidates who fulfill the requirement in Clause 2 and who otherwise possess the qualifications of Ph.D. candidates will embark on a program approved on an individual basis. This will normally include not less than 18 credit hours in graduate courses, at least 6 credit hours of which must be at the 7000-level.
5. Where needed, each program will include appropriate courses to ensure that the student will have completed 9 credit hours from graduate courses in each of two required fields selected from the following:
   a. Phonetics and Phonology
   b. Morphology and Syntax
   c. Comparative and Historical Linguistics
   d. Dialectology and Sociolinguistics
6. The comprehensive examination (see Regulation **Comprehensive Examinations, Ph.D. Comprehensive Examination** of the **General Regulations**) includes two written and two oral examinations. Students must meet all language requirements prior to undertaking their comprehensive examination.
   a. The written examinations consist of two separate research papers. These papers will be submitted to the Examination Committee. At least one of the papers must be in one of the core areas of phonetics/phonology, morphology, syntax or semantics. The topic selected for each paper must obtain the prior approval of the Graduate Studies Committee of the Department. In each of these papers, candidates must demonstrate knowledge of the literature on the topic selected, general mastery of the discipline of linguistics, and ability to undertake independent research.
   b. The Examination Committee will examine the candidate orally, on each paper, within one month of submission. Questioning can be as wide-ranging as the committee deems necessary to ensure that the student displays a thorough and comprehensive knowledge of the area in question.
   c. The Examination Committee shall consist of the Head of Department (or delegate) who shall chair the committee, the Supervisor, the Dean of Graduate Studies (or delegate), and other members necessary to satisfy General Regulation **Comprehensive Examinations, Ph.D. Comprehensive Examination**, 2., who may normally include the members of the Supervisory Committee. If the Head of Department is also a member of the Supervisory Committee, an additional representative of the department shall be appointed to chair the Examination Committee.
7. Initially, candidates must obtain approval for their Ph.D. thesis topics from the Graduate Studies Committee of the Department, in consultation with the Supervisory Committee. The thesis topic is normally selected before the end of the second full year in the program. Once the topic is approved, a more detailed thesis proposal must be presented to the Department in both written and oral format, and must receive formal departmental approval prior to the writing of the thesis.
8. Proficiency in a language other than the candidate's first language will be required, as demonstrated by a minimum B grade in a second-year language course, or performance satisfactory to the department in an arranged reading proficiency test. A structural knowledge of a non-Indo-European language is also required, as demonstrated by a minimum B grade in a field methods/language structure course, or other performance satisfactory to the department. Depending on the program, a reading knowledge of one or more additional languages may be required. Students must meet all language requirements before undertaking their comprehensive examinations.
9. All Ph.D. students are advised to consult the Linguistics department's Graduate Handbook for details on program requirements and for general information relating to the graduate program.

Courses

A selection of the following graduate courses will be offered to meet the requirements of students, as far as the resources of the Department will allow. Full information is to be found in the Department's Graduate Brochure.

6001 Issues in Morphosyntax
6050-54 Structure of a North American Aboriginal Language (Credit restriction: Except where an exemption is supplied by the head of the department, a student may not obtain credit for more than one course in the 6050-54 series. Students may not obtain credit for any of the previously offered 6010, 6011, 6020, 6021, 6030, 6031, 6040, 6041 in addition to a course in the 6050-54 series.)
6055-59 Structure of an Uncommonly-Taught Language (Credit restriction: Except where an exemption is supplied by the head of the department, a student may not obtain credit for more than one course in the 6055-59 series.)
6110 Selected Topics in Transformational Grammar
6115 Topics in the Syntax of A Selected Language (Prerequisite: 6001 or 6110)
6150 Principles of Language Acquisition
6151 Selected Topics in Language Acquisition (Prerequisite: 6150)
6200 Generative Phonology
6201 Selected Topics in Phonology (Prerequisite: 6200)
6210 Sociolinguistics (Credit restriction: A student may not obtain credit for both 6210 or the former 6211)
6212 Selected Topics in Language and Gender
6220 Areal and Temporal Variations in Language
6300-09 Special Subjects
6350 General Romance Linguistics
6390 Franco-Canadian
6400 Comparative and Historical Linguistics
6401 Morphosyntactic Change (Prerequisite: 6400)
6403 Etymology (cross listed as English 6403)
6410 Comparative Structure of a Selected Language Family (Prerequisite: 6011 or 6031 or 6403)
6420 English Dialectology I
6421 English Dialectology II
6430 Selected Topics in Linguistic Variation (Prerequisite: 6220 or the former 6211)
6500 Field Methods
6601 Modern Linguistic Theories
6700 Experimental Phonetics
6701 Selected Topics in Experimental Phonetics (Prerequisites: 6200, 6700)
6800 Selected Topics in Morphology
6880 Selected Topics in Semantics
7000 Seminar in Research Methods
7001 Analytical issues in Linguistics
7100 Topics in North American Native Languages (Prerequisites: a course from series 6050-6054 or the former 6011, 6031, 6041)
7200 Advanced Topics in Syntax (Prerequisites: 6110, plus either 6001 or 6115)
7400 Seminar in Comparative and Historical Linguistics (Prerequisite: 6400 or 6410)

7430 Seminar in Linguistic Variation (Prerequisite: 6430)
7800 Seminar in Morpho-semantics (Prerequisite: 6800)
7900-03 Special Topics in Linguistics

Note: *Appropriate equivalent credits may be given for courses taken at the Summer Institute of the Linguistic Society of America, or a similar institute. Students are encouraged to attend these institutes: they should, however, consult the Head of the Department as to what courses may be appropriate for credit.*

25.19 Management

Associate Professor and Dean, Faculty of Business Administration

G. Gorman

The degree of Doctor of Philosophy in Management is offered in the Faculty of Business Administration. The designation refers to management in the broad context. The degree will offer specializations corresponding to functional areas in management. The degree currently is offered with a specialization in operations and information management [Ph.D. (Management: Operations and Information Management)].

The degree of Doctor of Philosophy in Management is offered by full-time study to qualified candidates. The **General Regulations** of the School of Graduate Studies and the Degree Regulations of the Faculty of Business Administration outlined below, will apply.

25.19.1 Admission to the Ph.D. Program

Admission is limited and competitive. General qualifications for admission to the Ph.D. Programs at Memorial University of Newfoundland are set out under **General Regulations, Qualifications for Admission**. Applicants from all disciplines will be considered.

In addition, applicants must have completed the GMAT with a minimum score of 600 (or GRE with a combined score of 1100).

25.19.2 Supervisory Committee

Until a supervisory committee has been formed, the Ph.D. Program Director will be the designated advisor of each Ph.D. student. Each candidate will have a supervisory committee consisting of three or more members, at least two of whom shall be members of the Faculty of Business Administration. The thesis supervisor shall be a doctorally qualified faculty member in the Faculty of Business Administration, Memorial University of Newfoundland, having a recent (past five years) research track record suitable to provide research supervision at the Ph.D. level. The supervisory committee will be appointed no later than the end of the first year of studies.

Students are encouraged to find a supervisor within the first year of the program and, together with the supervisor, find the remaining committee members by the time all required courses are completed.

25.19.3 Components of Study

25.19.3.1 Courses

Students are required to complete successfully a program of courses, normally over the first two years of the program. Students without an adequate background in the functional areas of business may be required to take additional breadth courses. Such determination will be made by the Ph.D. Admission Committee when a student is accepted into the program.

1. **Required for all Specializations**
   Philosophy 6XXX Philosophy of Science
   Business 9901 Approaches to Management Research
2. **One of**
   Business 9902 Modeling Methods in Management Research
   Business 9903 Quantitative Methods in Management Research*
   Business 9904 Qualitative Methods in Management Research**
3. Graduate Research Integrity Program (non-credit)

*Alternatively, students may elect to take Education 6467 if Business 9903 is not offered in a particular year, on the approval of the Ph.D. Program Director.

**Alternatively, students may elect to take Education 6466 if Business 9904 is not offered in a particular year, on the approval of the Ph.D. Program Director.

Operations & Information Management (OIM) Specialization Courses

In addition to the above-noted courses required for all specializations, the following courses are required for the Operations and Information Management specialization:

Business 9910 Optimization
Business 9911 Data and Process Models in Information Systems Development
Business 9912 Probabilistic Models
Business 9913 Human-Computer Interaction and Decision Support Systems
Business 9914 Supply Chains: Models and Management
Business 9915 Electronic Commerce
Business 991A/B Seminar in Operations and Information Management Research A/B
Business 9917 Special Topics in Operations Management
Business 9918 Special Topics in Information Systems

Recommended Sequence for Operations and Management Specialization (OIM) Table

Semester	Courses
Year 1, Fall	Philosophy 6XXX Philosophy of Science BUSI 9901 Approaches to Management Research BUSI 9910 Optimization BUSI 9911 Data and Process Models in Information Systems Development
Year 1, Winter	BUSI 9902, 9903, or 9904 (Modeling or Quantitative) Methods in Management Research BUSI 9912 Probabilistic Models BUSI 9913 Human-Computer Interaction and Decision Support Systems Graduate Research Integrity Program (non-credit)
Year 1, Spring	Summer Research Project
Year 2, Fall	BUSI 9914 Supply Chain: Models and Management BUSI 9915 Electronic Commerce BUSI 991A Seminar in Operations and Information Management Research (Part A) Graduate Program in Teaching (Recommended [non-credit])
Year 2, Winter	BUSI 991B Seminar in Operations and Information Management Research (Part B) BUSI 9917 Special Topics in Operations Management BUSI 9918 Special Topics in Information Systems

25.19.3.2 Summer Research Project

During the first summer in the program, students will complete a research project under the supervision of a qualified faculty member in the area of specialization. Projects must be presented in the course BUSI 991B Seminar in Operations and Information Management Research during the second year of the program or an equivalent course in other specializations.

25.19.3.3 Comprehensive Examination

Students shall undertake a mandatory written comprehensive examination, following General Regulation **Comprehensive Examinations, Ph.D. Comprehensive Examination**, which sets out the procedures for the comprehensive examination.

In addition:

1. A candidate in the Ph.D. Program in Management shall normally take the written Comprehensive Examination by the end of the seventh semester of the program. The candidate must have successfully completed all required courses prior to writing the Comprehensive Examination. The scope of the Comprehensive Examination will be determined by the Examining Committee (as defined in General Regulation **Comprehensive Examinations, Ph.D. Comprehensive Examination** under the guidance of the Supervisory Committee.
2. A list of topics/areas for the Comprehensive Examination will be provided to the student no later than three months prior to the date of the examination.
3. The written examination will take place in three phases over a one-week period.
4. Based on the results of the written examination, the Examining Committee may schedule a supplementary oral examination on any topics covered on the written examination. The oral examination request must be made to the Dean within two weeks of completion of the written examination. The oral examination, if any, must take place within six weeks of completion of the written examination.
5. The scheduling of the Comprehensive Examination will be initiated by the student's supervisor who will notify the Dean of the Faculty of Business Administration. The date of the written examination will be determined by the Dean of the School of Graduate Studies. The student will be provided with written notice of the scheduled dates of the written examinations. In the case of oral examinations, requests will be initiated by the Examining Committee or the student (as described above in 4.) through the School of Graduate Studies.

25.19.3.4 Ph.D. Thesis Regulations

1. The candidate must submit a thesis proposal to all members of the Supervisory Committee for evaluation and approval by the end of the eighth semester of the program. Within one month of submitting the proposal, the Candidate will give a public oral presentation of the proposal, attended by the Committee. The presentation will provide the Committee and others in attendance with an opportunity to raise questions about the proposal research. Immediately following the presentation, the Supervisory Committee will meet to assess the proposal. Assessment will result in one of the following three outcomes: (1) accept; (2) accept with changes; or (3) reject. The results of this assessment will be provided to the student following the meeting. Assessments of accept with changes or reject will be accompanied by written comments within one week of the proposal presentation.
2. If the proposal is rejected, the candidate will be permitted a second proposal. This proposal must be submitted and deemed acceptable by the Supervisory Committee within four months of the original proposal presentation. Failure to resubmit within this time period will lead to termination of the candidate's program.
3. The Ph.D. thesis will constitute an independent and original research contribution.
4. The Ph.D. thesis will be evaluated according to the process established in General Regulation **Theses and Reports, Evaluation of Ph.D. Theses** governing the School of Graduate Studies.

25.20 Mathematics and Statistics

Head of the Department
C. Radford

The degrees of Master of Applied Statistics (see appropriate calendar entry), Master of Science and Doctor of Philosophy are offered in the Department of Mathematics and Statistics. The Masters' degrees are offered by full-time and part-time studies.

25.20.1 Doctor of Philosophy

The following regulations should be read in conjunction with the **General Regulations** of the School of Graduate Studies.

1. Candidates shall be assigned a supervisory committee consisting of the supervisor (or Co-Supervisors) and at least two other

members of faculty appointed by the Dean on the recommendation of the Head.

2. A candidate shall complete at least 6 credit hours in graduate courses in the area of specialization. Candidates not holding a Masters degree shall, in addition, complete, or have already completed successfully, the course requirements for a Memorial University of Newfoundland Master's degree in mathematics or in statistics, as appropriate. Any candidate may be required to take additional courses.
3. The Comprehensive Examination consists of two parts, called the “qualifying review” and the “intermediate review”. Successful completion of both the qualifying and intermediate reviews constitutes successful completion of the Comprehensive Examination in the sense of General Regulation **Comprehensive Examinations**.
   a. The **qualifying review** consists of written examinations and takes place as soon as the Supervisory Committee deems appropriate, but not later than the end of the candidate’s third semester in the doctoral program. Its main purpose is to ensure that the candidate has a reasonably broad general knowledge of mathematics or of statistics, as appropriate.
   b. The **intermediate review** consists of an oral presentation on the candidate’s thesis topic followed by an oral examination based on the presentation although questions of a general nature relating to the field of specialization are also permitted. It must take place no later than the end of the candidate’s seventh semester in the doctoral program. Its purpose is to ensure that the candidate has specialized knowledge in his/her chosen area sufficient to do original research of a high level.

More details concerning the Department’s comprehensive examinations can be obtained from the Department.

25.20.2 Specific Regulations for the Ph.D. in Mathematics

A Master’s degree in mathematics or related area from a recognized university is normally required for entry into the Ph.D. program. Students holding a Bachelor’s degree (Honours or equivalent) in mathematics may be considered for direct admission into the Ph.D. program. Students currently registered in Memorial University of Newfoundland’s M.Sc. program in mathematics may request a transfer into a Ph.D. program. Such transfer must be supported by the intended Ph.D. supervisory committee and the Graduate Studies Committee.

25.20.3 Specific Regulations for the Ph.D. in Statistics

A Master’s degree in statistics from a recognized university is normally required for entry into the Ph.D. program. Students currently registered in Memorial University of Newfoundland’s MAS or M.Sc. program in statistics may request a transfer into a Ph.D. program. Such transfer must be supported by the intended Ph.D. supervisory committee and the Graduate Studies Committee.

In addition to general departmental requirements, each candidate for the Ph.D. in statistics will be required to present at least one paper at a graduate seminar on a topic to be approved by his or her Supervisor.

Table of Credit Restrictions for Present Mathematics Courses with Former Mathematics Courses

Credit may be obtained for only course from each of the pairs listed in this table.

Present Course	Former Course	Present Course	Former Course
6323	6030	6212	6080
6321	6032	6310	6130
6322	6035	6330	6200
6340	6040	6331	6210
6341	6041	6332	6350
6342	6042	6312	6500

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

Mathematics

6100 Dynamical Systems
6101 Modern Perturbation Theory
6102-6119 Special Topics in Applied Mathematics
6120 The Theoretical Fluid Dynamics
6121 Functional Differential Equations
6201 Numerical Methods for Partial Differential Equations
6202-6209 Special Topics in Numerical Analysis
6210 Numerical Solution of Differential Equations (for Computational Science students only - required core course)
6212 Numerical Methods for Initial Value Problems
6300 Algebraic Topology I (Homology Theory)
6301 Algebraic Topology II (Homotopy Theory)
6302 Algebraic Topology III (Theory of Fibre Bundles)
6304-6309 Special Topics in Topology
6310 Functional Analysis
6311 Complex Analysis
6312 Measure Theory
6313-6319 Special Topics in Analysis
6320 Group Theory
6321 Ring Theory
6322 Nonassociative Algebra
6323 Homological Algebra
6324-6329 Special Topics in Algebra
6330 Analytic Number Theory
6331 Algebraic Number Theory
6332 Point Set Topology
6340 Graph Theory
6341 Combinatorial Design Theory

6342 Advanced Enumeration
6343-6349 Special Topics in Combinatorics
6910 Topology Seminar
6940 Analysis Seminar
6950 Algebra Seminar

Statistics

6503 Stochastic Processes
6505 Survival Analysis
6510 Mathematical Statistics
6520 Linear Models
6530 Generalized Linear Longitudinal Mixed Models
6540 Time Series Analysis
6545 Statistical Computing
6550 Nonparametric Statistics
6560 Continuous Multivariate Analysis
6561 Categorical Data Analysis
6570-6589 Selected Topics in Statistics and Probability
6590 A Course in Statistical Consulting
6930 Statistics Seminar

25.21 Medicine

Professor of Medicine and Dean

J. Rourke

Professor and Associate Dean

P. F. Moody-Corbett

There are eight program areas in the Faculty of Medicine: Applied Health Services Research, Cancer Research, Cardiovascular and Renal Science, Clinical Epidemiology, Community Health, Human Genetics, Immunology and Infectious Diseases and Neurosciences. Each program area has a Co-ordinator who is responsible to communicate the interests of the program to the Faculty of Medicine Graduate Studies Committee and participate in the admission of graduate students into the graduate program in Medicine. Full descriptions of each of the programs is available at www.med.mun.ca/graduate/.

The degree of Doctor of Philosophy (in all programs excluding Applied Health Services Research) is offered in the Faculty of Medicine by full-time and part-time study. The Faculty of Medicine also offers the opportunity for students registered in the M.D. program to obtain a Ph.D. in a combined and integrated M.D.-Ph.D. program.

25.21.1 Doctor of Philosophy

Qualifications for Admission

The admission requirements for the Ph.D. degree in Medicine are as given under the **General Regulations** governing Ph.D. degrees.

Program of Study and Research

1. The program of study for a Ph.D. degree is the responsibility of the supervisory committee composed of a supervisor and at least two other faculty members.
2. It is the responsibility of the supervisory committee to meet regularly (at least annually) with the student and to provide guidance at all stages of the candidate's program. An annual report prepared by the supervisor and signed by the student and all members of the committee is required to be submitted to the Assistant Dean of Research and Graduate Studies (Medicine).
3. Graduate students are expected to participate in Faculty of Medicine seminars and journal clubs.
4. Graduate students in the Ph.D. degree normally take the comprehensive examination before the end of the seventh semester. The comprehensive examination consists of both a written and oral component and is in accordance with the **General Regulations** governing Ph.D. degrees.

25.21.2 M.D.-Ph.D. Program

The M.D.-Ph.D. program is offered by full-time study to highly motivated students with an excellent academic record who are interested in a research career in academic medicine and wish to receive both of these degrees.

The purpose of the M.D.-Ph.D. program is to provide medical education, including clinical skills, and training in health research. The integrated program is designed to increase the efficiency of obtaining both degrees, and the student is required to fulfill the complete requirements of both the M.D. and Ph.D. degrees.

M.D.-Ph.D. students are jointly enrolled in the M.D. program and the Ph.D. program which is overseen by the M.D.-Ph.D. Program Committee (Faculty of Medicine).

Qualifications for Admission

1. To be admitted into the M.D.-Ph.D. program, applicants must meet the admission requirements of both the M.D. and Ph.D. programs. Admission shall be by the Dean of Graduate Studies on the recommendation of the Assistant Dean, Research and Graduate Studies (Faculty of Medicine), and the Dean of Medicine on the recommendation of the Assistant Dean, Admissions (Faculty of Medicine).
2. Normally, students will enter the M.D.-Ph.D. program from the M.D. program after successful completion of the pre-clerkship phase or from the Ph.D. program after one or two years of the graduate program and acceptance into the M.D. program.

25.21.3 Program of Study and Research

1. The program of study for the Ph.D. is described in the preceding section and follows the **General Regulations** governing the Ph.D. degree. For the purposes of timing of the comprehensive examination, only the semesters in the Ph.D. component of the program will be counted.
2. The program of study for the M.D. follows the **General Regulations** governing the M.D. degree.
3. During the Ph.D. component, students are expected to maintain clinical skills by arrangement with the M.D.-Ph.D. Program Committee. Before resuming full-time studies in the clerkship phase of the M.D. component, students will be required to demonstrate competency in clinical skills.

4. During the M.D.-Ph.D. program (including the clerkship phase), students are expected to participate in Faculty of Medicine seminars and journal clubs in their area of research specialization.
5. The Ph.D. will be awarded to students in the M.D.-Ph.D. program on completion of all academic requirements appropriate to the Ph.D. degree. The M.D. will be awarded to students in the M.D.-Ph.D. program on completion of all academic requirements appropriate to the M.D. degree.

25.21.4 Evaluation

Failure to maintain academic standing in either the Ph.D. or M.D. components will lead to termination of the M.D.-Ph.D. program which will be annotated on the student's transcript. On failure of the M.D. component, the Dean of Graduate Studies may approve transfer to a Ph.D. program on the recommendation of the Assistant Dean (Research and Graduate Studies), Faculty of Medicine. On failure of the Ph.D. component, the Dean of Medicine may approve transfer to a M.D. program on the recommendation of the Assistant Dean of Undergraduate Medical Education.

Courses

For a list of courses offered by the Faculty of Medicine refer to the list of "Courses" offered for the Master of Science in Medicine.

25.22 Pharmacy

Associate Professor and Director of the School of Pharmacy
L.R. Hensman

The degree of Doctor of Philosophy in Pharmacy is offered to qualified candidates normally by full-time study. The **General Regulations** of the School of Graduate Studies of Memorial University of Newfoundland outlined in the current Calendar, and the Degree Regulations of the School of Pharmacy outlined below will apply. Every candidate in graduate studies shall comply with the **General Regulations**, Degree Regulations and all additional requirements of the School of Pharmacy.

25.22.1 Doctor of Philosophy

1. **Qualifications For Admission**
   a. Admission to the Ph.D. program is limited and competitive. Applicants must have completed an M.Sc. Degree in Pharmacy, or its equivalent in a related discipline, from a university of recognized standing.
   b. Other students may be considered for admission to a Ph.D. provided that they have been registered in a M.Sc. Pharmacy program for a minimum of 12 months, and have demonstrated to the satisfaction of the Graduate Studies Committee of the School of Pharmacy an ability to pursue research at the doctoral level. Students wishing to transfer from the M.Sc. to the Ph.D. will have completed 6 credit hours. Prior to admittance to the Ph.D. program, a written thesis proposal will be submitted for assessment by the Supervisory Committee plus one additional faculty member. The recommendation of this Committee will be forwarded to the Graduate Studies Committee of the School of Pharmacy.
   c. On admission to the program, a Supervisory Committee shall be appointed in accordance with General Regulation **Supervision** governing the School of Graduate Studies.
2. **Program Of Study And Research**
   a. As a minimum, each candidate shall successfully complete 6 credit hours as well as Pharmacy 6999 (Pharmacy Research Seminar). A minimum grade of 65% will be required in each course. Candidates shall complete additional undergraduate courses in Pharmacy or other related areas where the Supervisory Committee considers there to be a deficiency in the academic record. Candidates may select these courses in consultation with the Supervisory Committee. However, it will be the primary responsibility of the Supervisory Committee to ensure that deficiencies in the academic record are rectified.
   b. All candidates must submit a thesis proposal to the Supervisory Committee for approval no later than the second semester of study after admission to the program.
   c. All candidates must complete a comprehensive examination on or before the end of the sixth semester of study after admission to the program. The comprehensive examination will consist of two components: a written examination and an oral examination. The oral examination will normally be held no later than two weeks after successful completion of the written examination.
   d. A Comprehensive Examination Committee shall be appointed in accordance with General Regulation **Comprehensive Examination**. The Committee will be responsible for preparing the questions for the written and oral examinations and evaluating the candidate's performance in the subject area. The Committee will consist of the Dean of Graduate Studies (or delegate), the Supervisor, and three other members, one of whom may be a member of the Supervisory Committee. All shall be voting members of the Committee except the Dean of Graduate Studies (or delegate).
   e. Successful completion of the Ph.D program will require formal examination of the written thesis and an oral defence of the research, as prescribed in the General Regulation **Theses and Reports**. Final approval of the thesis shall be the responsibility of the School of Graduate Studies.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates as far as the resources of the School will allow. Permission of the instructor and the Graduate Studies Committee of the School of Pharmacy is required for admission to any graduate Pharmacy course.

6000 Medicinal Chemistry
6001 Advanced Physical Pharmacy
6002 Dosage Form Design & Novel Drug Delivery Systems
6003 Pharmacokinetic Modelling
6004 Principles of General Pharmacology
6005 Toxicology of Therapeutic Agents and Chemicals
6100-6104 Special Topics Courses
6999 Pharmacy Research Seminar

25.23 Physics and Physical Oceanography

Professor and Head of the Department
B. de Young

The following Departmental Regulations are supplementary to the **General Regulations** governing the M.Sc. and Ph.D. degrees. A thorough familiarity with the latter Regulations should be regarded as the prerequisite to further reading in this section.

The Department of Physics and Physical Oceanography compiles, and regularly reviews, a brochure which contains reasonably detailed descriptions of currently active research projects, as well as a comprehensive listing of recent research publications, and other material which may be of interest to prospective graduate students.

25.23.1 Doctor of Philosophy

The degree of Doctor of Philosophy is offered in Atomic and Molecular Physics, in Physical Oceanography, and in Condensed Matter Physics.

1. A program of study for the Ph.D. degree in Atomic and Molecular Physics, Condensed Matter Physics, or Physical Oceanography shall normally include a minimum of 9 graduate credit hours, beyond those required for the M.Sc. degree. However, depending on the student's background and area of specialization, more or fewer graduate and/or undergraduate courses may be required.
2. A Comprehensive Examination (as prescribed under General Regulation **Comprehensive Examinations**) shall be an oral one, and may include the presentation of a written research proposal.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

6000 Condensed Matter Physics I
6001 Condensed Matter Physics II
6002 Superconductivity
6003 Path Integral Techniques in Condensed Matter Physics
6010-19 Special Topics in Condensed Matter Physics
6040 Biophysics
6060-69 Special Topics in Interdisciplinary Areas
6200 Nonlinear Dynamics
6308 Ocean Dynamics I
6309 Ocean Dynamics II
6310 Physical Oceanography
6313 Physical Fluid Dynamics
6315 Polar Oceanography
6316 Ocean Measurements and Data Analysis
6317 Ocean Acoustics
6318 Numerical Modeling
6319 Climate Dynamics
6320 Turbulence
6321 Coastal Oceanography
6322 Stratified Fluids
6323 Stability Theory
6324 Models in Ocean Ecology
6360-69 (excluding 6363) Special Topics in Physical Oceanography
6363 Laboratory Experiments in Geophysical Fluid Dynamics
6400 Statistical Mechanics
6402 Theory of Phase Transitions
6403 Stochastic Processes, Time-Dependent and NonEquilibrium Statistical Mechanics
6502 Electrodynamics
6720 Theory of Molecules
6721 Molecular Spectroscopy
6722 Light Scattering Spectroscopy
6730 Molecular Theory of Liquids and Compressed Gases
6740 Physics of Atomic Collisions
6760-69 Special Topics in Atomic and Molecular Physics
6800 Group Theory
6810-19 Special Topics in Theoretical and Mathematical Physics
6850 Quantum Mechanics I
6851 Quantum Mechanics II
6910-19 Special Topics in Experimental and Applied Physics

Table of Course Restrictions - Physics and Physical Oceanography

Credit may be obtained for only one course from each of the pairs of courses listed in this table.

Present Course	Former Course	Present Course	Former Course
6000	6050	6318	6304
6001	6051	6321	6303
6002	6822	6321	6304
6003	6820	6323	6303
6200	6821	6402	6401
6308	6312	6403	6401
6309	6311	6403	6824
6313	6301	6502	6500
6316	6302	6502	6501
6317	6823	6722	6790

Members of the department carry out research in several areas of experimental and theoretical physics, including atomic and molecular physics, condensed matter physics, physical oceanography, theoretical geophysics and applied nuclear physics. In atomic and

molecular physics, there are experimental programs in collision-induced infrared absorption spectroscopy, electron emission spectroscopy of simple molecules, molecular ions and free radicals, laser-induced fluorescence spectroscopy, and Raman spectroscopy, and theoretical work on atomic and molecular collisions. The work in condensed matter physics includes experimental programs in solid state nuclear magnetic resonance on systems of biophysical interest, Raman spectroscopy of lipid bilayers and membranes, studies of phase transitions using Brillouin and Raman spectroscopy, studies of instabilities and pattern formation in simple fluid dynamical systems, and spectroscopic studies of molecular crystals. Theoretical condensed matter physics research involves studies of magnetism, superconductivity, and the statistical mechanics of polymers and lipid bilayers. The Physical Oceanography group carries out field and laboratory research on several projects which take advantage of Newfoundland's unique oceanographic environment, using acoustic and other remote sensing techniques. These include studies of circulation on the Newfoundland and Labrador shelves, Labrador current dynamics, fjord dynamics, submarine canyons and sediment transport dynamics in the nearshore zone and on the shelf. Theoretical oceanographic studies involve the modelling of ocean circulation, gravity wave phenomena and other aspects of ocean dynamics. Research in theoretical geophysics is concentrated on whole-Earth dynamics, with special emphasis on the physics of the liquid core (the Earth's "third ocean") as inferred from its wave spectrum and the associated momentum transfer to the deformable solid parts of the Earth. In nuclear physics, research is done on the atmospheric concentrations of radioactive elements and on dosimetry for medical applications.

Note: *For Geophysics, see Earth Sciences*

25.24 Psychology

Professor and Head of the Department

I. Neath

The degree of Master of Science is offered in Experimental Psychology. Interested students should also see the Master of Science in Cognitive and Behavioural Ecology. The degree of Doctor of Philosophy is offered in Experimental Psychology. Interested students may wish to consult the section in the Calendar describing the Doctor of Philosophy in Cognitive and Behavioural Ecology program.

Applications

1. All applicants are required to submit results from the General section of the Graduate Record Examinations.
2. At least one letter of reference should come from someone who is familiar with the applicant's research capability.
3. Applicants applying to programs in Cognitive, Perception and Animal Learning are required to submit with their applications an example of their academic writing. This could include, but is not limited to, papers submitted in class, Honour's thesis, etc.

25.24.1 Doctor of Philosophy

1. An applicant must hold either a Master's degree or an Honours Bachelor's degree with first class standing to be considered for admission. The program of study will be specified at the time of admission. Decisions on (a) whether to include courses in the program, and if so, (b) which specific courses are to be included will be based on the student's background and the proposed thesis topic.
2. **Comprehensive Examination**

   The Ph.D. comprehensive in Experimental Psychology shall be taken during the first year of the student's program. The examination will consist of two parts: (1) an essay, the topic of which is different from the subject of the thesis, and (2) an oral examination which tests the candidate's ability to integrate the essay into the broad area of Psychology. The essay topic will be assigned by the Examining Committee in consultation with the student and Supervisor. The essay should not be a précis of the literature, but a critical appraisal of a subject. This should identify important unresolved issues, and where possible suggest solutions to them. Themes for questions for the oral examination will be provided to the student three weeks in advance of the examination.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

6000 Advanced Statistics in Psychology
6001 Research Design
6100-6114 Special Topics in Experimental Psychology
6200 Learning I
6201 Learning II
6203 Behavioural Pharmacology
6210 Behavioural Analysis of Toxins
6350 Behavioural Ontogency *(Cross-listed as Biology 6350*)
6351 Behavioural Ecology and Sociobiology *(Cross-listed as Biology 6351)*
6355 Field Course in Animal Behaviour *(Cross-listed as Biology 6355*)
6400 Theory and Methods in Social Psychology
6401 Social Cognition
6402 Group Processes
6403 Advanced Methods in Applied Social Psychological Research
6404 Project in Applied Social Psychology *NOTE: This course is open only to students in the Master of Applied Social Psychology*
6500 Developmental Psychology I
6501 Developmental Psychology II
6502 Developmental Changes During Old Age
6700 Perception
6710 Human Information Processing
6720 Human Memory
6800 Behavioural Neuroscience I
6801 Behavioural Neuroscience II
6810 Psychometrics
6910 Personality
6990 Doctoral Seminar I
6991 Doctoral Seminar II
6992 Doctoral Seminar in Biopsychology

25.25 Social Work

Associate Professor and Director
S. Birnie-Lefcovitch

25.25.1 Doctor of Philosophy

The degrees of Master of Social Work and Doctor of Philosophy are offered in Social Work.

Course work commences in the Spring Semester and is completed over five semesters. The program includes two Spring Semester residencies, at which time students must attend on a full-time basis, and Fall and Winter semester courses which can be taken on or away from campus.

1. An applicant for admission to the Ph.D. program in Social Work must hold a Master's degree in social work, or equivalent professional social work degree as determined by the Graduate Studies Committee of the School of Social Work. All applicants should also have a minimum of three years post-B.S.W. practice experience.
2. All Ph.D. students in the social work program must complete at least 24 credit hours in regulation graduate courses. These include:
   a. 6 credit hours in foundation courses (7010 and 7020)
   b. 6 credit hours in advanced practice courses (7310, 7320); or 3 credit hours in advanced practice courses (7310) and 3 credit hours on social work education (7510)
   c. 9 credit hours on research (7411, 7421, and 7431)
   d. 1 internship chosen from the Internships on Advanced Social Work Practice (7910), Social Work Education (7920), or Applied Social Work Research (7930).
3. Comprehensive Examination
   a. A candidate registered in a Ph.D. program in Social Work shall normally take the Comprehensive Examination no later than the seventh semester in the program. Prior to proceeding to the Comprehensive Examination, candidates must have completed all required course work and the internship.
   b. The Examination Committee shall be appointed by the Dean of Graduate Studies on the recommendation of the Director (School of Social Work). It shall consist of:
      i. the Ph.D. Program Co-ordinator who will serve as representative of the Director of the School of Social Work and who shall occupy the Chair
      ii. the candidate's Supervisor
      iii. the Dean of Graduate Studies or delegate
      iv. three other members recommended by the Director of the School of Social Work. One of these normally will be on the candidate's Supervisory Committee.

      Including the Supervisor, no more than two members of the Examination Committee may be nominated from the candidate's Supervisory Committee. All members of the Examination Committee, including the Chair, but excluding the Dean of Graduate Studies or delegate, shall be voting members.
   c. The Ph.D. Comprehensive in Social Work will consist of a written paper which has two main parts. The first part will contextualize the student's substantive area through a comprehensive analysis and discussion of its place in and development from social work theory and the profession's history. This part should demonstrate a comprehensive understanding of competing theoretical frameworks and orientations in social work and should demonstrate appreciation for historical developments generally as well as specifically to the student's substantive area of interest. The second part of the paper will focus specifically on the student's substantive area. In consultation with the Examination Committee, the student will identify an area of empirical research that may be undertaken and will prepare a written statement that includes: an introduction and formulation of at least two related research questions; a literature review that is consistent with these questions, which presents a critical evaluation of the literature, and that synthesizes the literature into the student's own theoretical framework; two competing research designs for answering the research question and a critical compare and contrast that leads to an argument for one design over the other. The focus and content of the written work will be defined by the Examination Committee in consultation with the student, and will be approved by the Ph.D. Program Co-ordinator in the School of Social Work. The written product shall be no less than 50 pages and not more than 75 pages. It will be orally defended. The student shall have up to one semester (13 weeks) to submit the paper.
   d. The Ph.D. examination procedure shall be initiated by the candidate's Supervisor who will notify, in writing, the Director (School of Social Work) of the candidate's readiness. The candidate's Examination Committee will then be appointed according to section 3.b. (above).
   e. Following the oral defence, the Examination Committee shall meet *in camera* to arrive at its conclusions. Evaluation of the candidate will be based on the following criteria:
      i. demonstration of knowledge of social work theory, research, and issues relevant to the topic of inquiry in both the written and oral presentation.
      ii. coherency of oral presentation and written paper (i.e. conceptualization, cogent argumentation, sufficient referencing of statements, clear writing style).
   f. The Chair shall report the results of the examination to the Dean of Graduate Studies in accordance with General Regulation **Comprehensive Examinations, Ph.D. Comprehensive Examination**, 4.
4. Ph.D. Thesis
   a. A Supervisory Committee will be appointed for each student (see General Regulation **Supervision**).
   b. The candidate must submit a thesis proposal to the Supervisory Committee based on her/his own interest, and normally the proposal must be approved by the end of the eighth semester of the program. The proposal will be circulated to the Supervisory Committee for critical evaluation. The Chairperson of the Supervisory Committee will inform the candidate within one month of its acceptance, rejection, or acceptance with recommended changes.
   c. If the proposal is not acceptable, the candidate will normally be permitted a second attempt. The revised proposal must be submitted within a semester. Failure to resubmit within this time period will lead to termination of the candidate's program.
   d. The thesis shall give evidence of the candidate's ability to carry out independent and original research, develop the necessary theoretical and methodological framework and analyses and present the findings in a scholarly manner.

Courses

The following courses that are offered during the spring semester residency will be offered every other year, as far as the resources of the School will allow:

7010 Philosophical and Historical Base of Social Work Practice (S*)
7020 Critical Thinking for Social Work Practice (S)
7310 Tutorial on Field of Practice (F** or W***)
7320 Tutorial in Advanced Social Work Practice (S)
7411 Philosophy of Science and Research Design (S)
7421 Qualitative Data Analysis (S)
7431 Quantitative Data Analysis (S)
7510 Social Work Education (S)
7910 Internship on Advanced Social Work Practice(F)
7920 Internship on Social Work Education (F)
7930 Internship on Applied Social Work Research (F)

*S = Spring Semester, **F = Fall Semester, ***W = Winter Semester

25.26 Sociology

Professor and Head of the Department
S.H. Riggins

The Doctor of Philosophy is offered in Sociology by full-time and part-time study. Graduate courses are taught as tutorials or small seminars.

25.26.1 Doctor of Philosophy

1. The Ph.D. degree in Sociology is offered in accordance with the general regulations in the following areas:
   a. Maritime Sociology
   b. Gender
   c. Work and Development
   d. Any combination of these three specialties.
2. To be admitted to the program an applicant must have completed either a Master of Arts or Master of Philosophy degree or hold an equivalent qualification.
3. All Ph.D. candidates must complete a minimum of 12 credit hours in graduate courses, including the Sociology Graduate Seminar (6880), Social Theory (6150) and Methods of Sociological Research (6040) if these have not been taken previously.

   Students specializing in Maritime Sociology must also take 6300, 6340, and 6350. Students specializing in Gender must take 6320, 6370 and 6380. Students specializing in Work and Development must take 6130, 6280, and 6360. Students combining specialties will take 9 credit hours in subjects to be determined by the Sociology graduate committee after consultation with the student's supervisor.
4. Proficiency in a second language will be required when the candidate's supervisory committee determines that knowledge of this second language is necessary for the purpose of the proposed doctoral research.
5. A written comprehensive examination, which may be followed by a supplementary oral examination, shall be completed by full-time students no later than the end of the second year of the program.

   Normally, part-time students shall take the examination within one year of the completion of prescribed courses. In accordance with **General Regulations**, candidates must demonstrate knowledge of their special areas of research within the context of the discipline of Sociology. The examination shall consist of three parts: social theory, research methods, and a special area.
6. No more than two years after having been admitted to the program the candidate must submit a thesis proposal that is considered satisfactory by the Supervisory Committee.

Courses

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

6040 Methods of Sociological Research
6090-94 Special Area in Sociology
6120 Social Organization
6130 Social Stratification
6140 The Community
6150 Social Theory
6160 Theory Construction and Explanation in Sociology
6240 Sociology in Medicine
6280 Social and Economic Development
6300 Maritime Sociology
6310 Political Sociology
6320 Gender and Society
6330 Science and Technology
6340 Comparative North Atlantic Societies
6350 Environmental Sociology
6360 Sociology of Work
6370 Feminist Theory and Methods
6380 Women, Nature, Science and Technology (Cross listed as Women's Studies 6380)
6610 Socialization
6620 Current Topics in Social Behaviour
6880 Sociology Graduate Seminar