



FACULTY OF
**HEALTH
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MCMASTER
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HRM

HEALTH RESEARCH METHODOLOGY

**FHS GRADUATE PROGRAM IN
HEALTH RESEARCH METHODOLOGY (HRM)**

**MSc STUDENT ORIENTATION
INFORMATION MANUAL**

**McMASTER UNIVERSITY
HAMILTON, ONTARIO, CANADA**

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GREETINGS

Welcome to the MSc Program in Health Research Methodology (HRM).

This guide outlines the policies and procedures followed by the Health Research Methodology (HRM) Graduate Program which operates within the Faculty of Health Sciences at McMaster University as a component of the Health Sciences Graduate Programs. Graduate studies in the Faculty of Health Sciences are administered by the Graduate Policy and Curriculum Committee under the auspices of the School of Graduate Studies as described in the current **SCHOOL OF GRADUATE STUDIES CALENDAR**. This Guide is a supplement to the SGS Calendar and **does not provide a comprehensive set of binding** regulations. This document is not intended to replicate or modify the information found in the School of Graduate Studies (SGS) Calendar (available at <http://graduate.mcmaster.ca/graduate-calendar>). **If there is any discrepancy between this document and the SGS Calendar, then the School of Graduate Studies Calendar shall prevail.** Students and faculty are encouraged to look at the SGS Calendar for information about:

- Graduate study at McMaster
- General regulations of the School of Graduate Studies
- University regulations
- Graduate fees and financial assistance
- University regulations affecting graduate students
- University services
- Fellowships, scholarships, bursaries and other awards
- University governing bodies
- Student appeals
- Degree programs (including degree requirements).

Updates, along with, news and announcements are also posted on the HRM website - please check the website regularly for new information: <http://www.fhs.mcmaster.ca/hrm>.

HRM PROGRAM AND LEADERSHIP

The Department of Clinical Epidemiology and Biostatistics (CEB) is the administrative and intellectual home of the HRM program, although the HRM faculty come from across the Faculty of Health Science.

The Associate Dean for Health Sciences Graduate Studies is jointly appointed by the School of Graduate Studies and the Faculty of Health Science to oversee graduate programs in health sciences.

The Assistant Dean for HRM is a faculty member in the Department of Clinical Epidemiology and Biostatistics who provides faculty-level leadership and oversight of the HRM program.

Each field of specialization has a Field Leader. The field leaders make recommendations about field specific curriculum changes and approve education plans for students in the field.

The HRM Program Manager oversees the day-to-day management of the HRM program and works with the Assistant Dean in developing the curriculum. The Program Manager supervises other HRM staff. The Program Manager is normally the first point of contact for students who need help in managing their time in the program.

Decision-making and Getting Help.

- Your Supervisor or Advisor is usually first person to approach with academic or personal problems. She or he carries the overall responsibility for all aspects of your degree work.
- Questions about policies and procedures are best directed to the HRM Program Manager. HRM program staff will sometimes direct inquiries to the Assistant Dean. Policies and procedures are summarized in this manual and in the SGS Graduate Calendar. Forms and additional material are available on the HRM website along with contacts for specific inquiries.
- Students may consult the Assistant Dean regarding a variety of matters beyond routine procedural inquiries. These may include interpreting the applicability of regulations and policies, concerns about supervision or personal problems affecting work, or if the student wishes to deviate from regulations in consideration of a particular circumstance. In such cases of petitions for special consideration, the Assistant Dean is normally required to approve the student's request, which is then adjudicated by the Associate Dean (HSGS). As such, the support of the Assistant Dean does not guarantee that a request for special consideration will be approved.

THE FIELDS OF SPECIALIZATION

The HRM program can provide students the opportunity to **specialize** in one of five ‘fields of specialization’. The five fields are: clinical epidemiology, biostatistics, health services research, public and population health and health technology assessment. All five fields are offered at the MSc and PhD level except for Biostatistics, which is offered at the PhD level only.

The establishment of fields of specialization within the HRM program is first and foremost a **student-centred** initiative that emerged in part as a response to informal specialization by students. Students who opt for a field of specialization align themselves with a specific area of expertise and focus on the acquisition of corresponding core knowledge and skills. In so doing, individuals optimize the impact of HRM training on their overall professional development and graduate with formal recognition.

The original HRM program, wherein students opt not to declare a field of specialization will continue to be available as “**HRM Classic**”. Students in HRM Classic pursue a general methods degree, or explore other areas such as medical education research, health informatics or health ethics, to name but a few.

How to Select a Field

An overview of each of the five fields is provided below. Degree requirements for all fields are as follows:

	MSc (Thesis Based)	MSc (Course Based)	PhD
No. of Required Courses	5	7	3
Research internship	√	√	
Scholarly Paper		√	
Comprehensive Exam			√
Thesis	√		√

Further information about field specific requirements can be obtained from the HRM website: http://fhs.mcmaster.ca/hrm/msc_degree.html) and/or the relevant field leader. Please note that applicants interested in more than one field are advised to select HRM Classic.

Clinical Epidemiology:

Clinical epidemiology employs sound research principles, tempered with practicality, to find the best answers to “real world” questions about clinical practice and health care. Individuals training in this field (who usually have a clinical background) acquire the skills required to undertake research that addresses fundamental questions about the effectiveness of clinical therapies, usefulness of screening and diagnostic tools, prognosis and disease causation. Issues related to research synthesis and knowledge translation may also be a focus. Individuals training in clinical epidemiology work alongside world leading clinical epidemiologists who are conducting their research in multiple sites around the world and changing the way medicine is practiced globally. The field of clinical epidemiology in the Health Research Methodology Program offers a unique opportunity to learn and work with the best clinical epidemiologists in the world, thus enabling graduates to make profound contributions to the practice of clinical medicine through research.

Students can enter the clinical epidemiology stream if they fulfill the following criteria:

1. They have a designation of a health care provider based upon a degree or diploma (e.g., doctors, physiotherapists, nutritionists).
2. Their HRM degree research primarily focuses on studies directly relevant to patients (e.g., randomized controlled trials, observational studies, or systematic reviews of health related questions).

If a student is not a designated health care provider and wants to appeal these criteria then towards the end of their HRM training they can submit a summary of the research (eg., course papers, studies and research) they have undertaken to the Clinical Epidemiology Stream Committee. The committee will review the student’s request to determine if it merits the designation of the clinical epidemiology stream.

Biostatistics (PhD only):

The HRM Biostatistics PhD field is specially designed for applicants with an MSc in Mathematics and/or Statistics who wish to pursue doctoral work in Biostatistics. The program aims to provide trainees with the skills they need to conduct independent research into biostatistical topics, provide leadership as biostatistical collaborators in clinical, health systems and population health investigations, and effectively teach biostatistics from introductory through to advanced levels. Graduates will possess the following skills: ability to apply biostatistical concepts, techniques and data-analytic strategies across the full spectrum of research questions and study designs; ability to contribute to grant proposals in the areas of research design, data analysis and interpretation; ability to teach biostatistical concepts to research colleagues who are not biostatisticians; and ability to adapt existing statistical techniques or to develop new techniques to solve research design and analytical programs. Graduates may pursue career opportunities in academia, government or private industry.

Health Services Research:

Health services research focuses on questions about the most effective ways to organize, manage, finance, and deliver high quality clinical and health care, reduce medical errors and improve patient safety. The research domains utilized by health services researchers may include individuals, families, organizations, institutions, communities, and populations. Graduates acquire a broad range of skills in research synthesis, research design, data analysis and writing for publication that enable them to conduct rigorous research in numerous areas including: patterns of care/process of care, small area practice variation studies, appropriateness of care, knowledge translation, economic analysis of health care, service and system organization, patient experience, theoretical underpinnings of health services organization, management, and financing and delivery. The curriculum emphasizes mixed methods approaches that utilize skills in both quantitative and qualitative research.

Public and Population Health:

Canada faces many public health challenges, including emerging and existing infectious diseases and alarming increases in many chronic diseases. Research to address the determinants of these health problems is of paramount importance to maintaining a healthy population. The field of population and public health provides students with the methodological expertise needed to conduct cutting edge research, including investigations into the biological, economic, and social factors that protect, precipitate or perpetuate disability and disease, and to improve public health. Graduates will acquire the following skills: ability to critically appraise and interpret research evidence, formulate research questions, justify research and analysis methods and understand ethical issues involved in research in this field; ability to conduct research into biological, social, cultural, and environmental determinants of health; ability to conduct basic or applied research in public health aimed at improving the health of individuals, communities and populations; and ability to apply population and public health methods across a range of disease conditions.

Health Technology Assessment:

Health Technology Assessment (HTA) is defined as the evaluation of the clinical effectiveness, cost-effectiveness, and broader impact of drugs, medical technologies, and health systems, both on patient health and the health care system. HTA has gained increasing importance in health care decision making locally and around the world and over the last decade there have been numerous important methodological advances in the techniques of HTA. As a result there is a growing gap between the need for HTA and the availability of skilled researchers to conduct HTAs. The goal of the HTA field specialization is to train individuals who, upon graduation, will have the necessary skills to be actively involved in independent and collaborative research in the field of HTA. Graduates will possess the following skills: a strong foundation in the basic principles of HTA; advanced decision analysis; ability to apply research methods derived from health economics; understand and use basic and advanced biostatistics; and utilize health services research and health policy analysis concepts and methods.

HRM Classic:

Students who don't wish to declare a field of specialization should enroll in HRM Classic. The advantage centres on the high level of flexibility HRM Classic offers, enabling students to tailor their educational plan to

their own unique needs and interests. Students pursue a general methods degree, or explore other exciting emerging fields. For example, applicants interested in medical and health sciences education research can work with faculty in the Program for Educational Research and Development on research related to the evaluation of clinical competence. Alternatively, students in HRM Classic might work on medical informatics and knowledge translation research topics, investigating the use of evidence by different professional groups such as health care providers, health systems administrators and government policy-makers, and contributing to an improved understanding of the behavioural and contextual factors that determine effective knowledge uptake. Many other areas, including health ethics, can be selected as the focus of study.

1.0 FACULTY OF THE HRM PROGRAM

1.1 Faculty Available for M.Sc. Supervision and Supervisory Committee Members

The HRM Program maintains an updated list of HRM faculty members who are available to serve as MSc thesis supervisors and members of a student's MSc Supervisory Committee. Note that the School of Graduate Studies at McMaster University requires that all faculty members involved in graduate student supervision be approved by the Program, Office of the Associate Dean of Graduate Studies and School of Graduate Studies in order to supervise HRM MSc students.

Please refer to the updated list of HRM faculty available to supervise HRM MSc theses and sit on HRM MSc supervisory committees. The list is updated as new faculty are approved and is available at:
<http://fhs.mcmaster.ca/hrm/faculty.html>

2.0 FACULTY ADVISOR AND STUDENT RELATIONSHIP

The program assigns each student to a faculty advisor. Most often, Stream I students enter the program with an identified advisor or independently arrange a suitable HRM advisor. This document provides guidelines on the role and responsibilities of both faculty and students in this context.

The School of Graduate Studies graduate calendar outlines the responsibilities of graduate students, their supervisors, advisors and the expectations of a graduate student-supervisor relationship in section 2.7, and section 2.7.1.

2.1 General Objectives

The faculty advisor should act as the initial contact person on the HRM faculty. As such, he/she acts as the student's primary representative to the rest of the HRM faculty in all aspects of the student's goals in taking the HRM Program. The faculty advisor should be aware of the student's interests, goals and progress and should offer ongoing advice to the student towards attaining these. The student's responsibility is to keep his/her advisor informed about their direction and progress in the program.

2.2 Specific Objectives

The specific objectives of the advisor-student relationship include the following:

- The advisor should ensure, from the beginning of a student's enrolment in the HRM Program, that the student feels welcome in the program.
- The advisor and the student should meet regularly, on a one-on-one basis, to discuss progress through the program and evaluations that have been received.
- The advisor and student should discuss the research internship requirement early in their meetings together to decide whether or not the student will join a research team in which the advisor participates for the internship. If the decision is made not to do a research internship with the advisor, the advisor should assist in identifying another internship opportunity.

- The student should keep the advisor informed about project activities in research courses.
- The advisor should assist the student in the selection of appropriate courses to optimize his/her education in the elective parts of the program.
- The advisor will often be the supervisor of the student's thesis. However, there is no expectation for this to occur, unless the student receives stipend support from the advisor. The topic must be acceptable to the advisor and to the student for the advisor to become the thesis supervisor.
- It is expected that students avail themselves of a variety of opportunities during their HRM Program. The advisor should assist the student in contacting other faculty members who might act as resources for HRM activities such as course projects, internships and the thesis. The initiative should usually come from the student in specifying the type of resources required; input from the advisor is helpful in identifying faculty members with the most appropriate skills and interests. While students may, in principle, contact any individual for help during their program, they should realize that only faculty members associated with the HRM Program are eligible to assume roles where formal academic credit is required. The thesis supervisor is required to have a formal appointment in the School of Graduate Studies.
- A faculty advisor may continue to see the student even if another faculty member assumes the role of supervisor.
- Although the advisor may help, it is ultimately the student's responsibility to identify a suitable thesis committee, usually consisting of three internal readers and one external reader. It is also the student's responsibility to work with the HRM Program Office and inform the Office so that a room is booked for the defense. The student must provide all readers with a copy of the thesis in good time before the defense itself. The thesis should not be sent to the external reader before all of the internal committee members have read it and provided feedback. The student and the thesis supervisor should be particularly careful to apprise the external reader of his/her responsibilities in assessing the thesis. Failure to carry out any of these steps may result in postponement of the defense or partial or complete disapproval of the thesis. See a later section of the Student Orientation Manual section 12.0 MSc Thesis for complete details concerning the thesis.
- If the student chooses to do a final Scholarly Paper, the advisor/supervisor may help the student select an appropriate topic, although the topic chosen is the student's responsibility. Usually the advisor and one other faculty member will read the final scholarly paper and evaluate it.
- While every effort is made to identify the most appropriate advisor/supervisor student pairs at the outset, the relationship may be terminated at any time by either party, and a new advisor identified. Similarly, the appointment of a new advisor must be mutually acceptable to both parties. Students who change their supervisor may forfeit stipend support. Changes in advisor or supervisor must be approved by the Assistant Dean – HRM.
- A change of advisor must be negotiated with the approval of the program office. In the (hopefully unlikely) circumstance of a breakdown because of advisor-student incompatibility, the Assistant Dean must be consulted in order to select a new advisor. Where information about the change is required simply for administrative or academic requirements, the program office should be notified after the change has occurred and the student is required to submit a revised education plan. Note that a change in thesis supervisor is not the norm and students and supervisors should refer to the School of Graduate Studies Graduate Calendar (section 2.7) for procedures re requesting to change a member of the supervisory committee:
<http://academiccalendars.romcmaster.ca/content.php?catoid=4&navoid=191#2.7> Supervision

2.3 Organization

At the beginning of each academic year (July 1), incoming students are assigned to a faculty advisor by

the Assistant Dean, HRM. Each student should contact his/her advisor during the first week in residence, or as soon as possible thereafter to get acquainted. The frequency of subsequent meetings should be negotiated, but it is suggested that they occur at least once per term. Much more frequent meetings will be needed at certain times during the student's program; when the student is new to the program and during the time the student is selecting a thesis or final Scholarly Paper topic.

3.0 HRM PROGRAM REQUIREMENTS (MSc)

3.1 Requirements for a Thesis-based MSc Degree

- i) For full-time students, the expected time for completion is two years from initial registration in the program, not usually less than 14 months of continuous, full-time study.
For part-time students, five years (maximum) to complete all degree requirements. Note: part-time students typically complete the program in 3.5 – 4 years from initial registration.
- ii) Successful completion of at least five half courses at the graduate level of which:
 - a. one course must be HRM 721
 - b. one course must be HRM 702
 - c. the remaining required courses may be selected from among the courses offered by the HRM Program
- iii) Field-specific courses (if applicable)
- iv) Completion of a research internship
- v) Submission and successfully defend a thesis

3.2 Requirements for a Course-based MSc Degree

- i) For full-time students, three years (maximum) to complete the degree requirements
For part-time students, five years (maximum) to complete all degree requirements
- ii) Seven half courses at the graduate level are required in total, of which the following are mandatory:
 - a. HRM 721
 - b. HRM 702
- iii) Field-specific courses (if applicable)
- iv) Completion of a research internship
- v) A scholarly paper on a methodological issue, written at the completion of course work (may be completed in final term if only one half course is taken)

3.3 Degree Requirements for Fields of Specialization

Please see the attached degree requirement table for clarification regarding the specific courses for each field.

3.4 SGS 101 & SGS 201 Requirement

All graduate students at McMaster University are required to successfully complete SGS 101 and SGS 201 during their first year of study. Information regarding registration will be circulated each term by the School of Graduate Studies.

3.5 Requirements for the Co-op Option MSc Degree

Full-time HRM thesis or course-based Master's students who have successfully completed at least four half-courses may be considered for the co-op option associated with this degree program. The number of students selected will be subject to available placements.

To complete the MSc co-op option successfully, the student must work a total of eight months in either one or two work-study placements. Each placement must be approved by the Assistant Dean, HRM. For MSc by thesis students, a project undertaken during a work term may evolve into a thesis topic during the second work placement, subject to the appropriate approvals.

At the completion of each work-term placement, the student must write a report and append a letter of evaluation by the employer.

Co-op placements may be made with governments, consulting firms, or non-profit organizations. During the co-op placement, the employer pays the student. A separate co-op fee must be paid prior to placement. A student completing the co-op option will be exempted from the research internship requirement. This option would normally require longer than 2 years to complete.

At this time there are no available co-op opportunities available; however, if a student and the student's supervisor requested review and approval for an appropriate co-op opportunity, the HRM Program would help facilitate the review process. Please contact the HRM Program Assistant for details.

3.6 Declaration of Degree Option

Declaration of degree option is typically completed when an offer of admission is made; however, full-time students in the Master's program should declare their status in the program by no later than the end of their first term. A change in status requires the permission of the thesis supervisor and the Assistant Dean – HRM, and may have implications for financial support.

Part-time students entering the Master's program must declare which option they will pursue after completion of three terms (April).

Current students are given a time-limited period to change their option from the thesis-based MSc to the course-based MSc.

4.0 EVALUATION

4.1 Student Evaluation in the HRM Program

There are several components of evaluation in HRM. They are course work, research internship, and final paper (course-based Master's) or thesis (thesis-based Master's).

4.2 Course Work

Student performance at the course level is quite straightforward. Each course has its own criteria that are usually based on assignments, papers and class participation. A letter grade is awarded by the course coordinator. The grading system is outlined below:

A+	=	90 to 100	consistently outstanding
A	=	85 to 89	overall superior quality
A-	=	80 to 84	high achievement
B+	=	77 to 79	competent, but not consistently high quality
B	=	73 to 76	satisfactory quality
B-	=	70 to 72	only marginally acceptable
F	=	failure	inadequate work

If a student receives a grade below B-, a recommendation may be made for the student to withdraw from the program.

4.3 Research Internship

Students and their supervisors meet together and discuss the objectives of the internship at the beginning of the internship, meet to discuss progress during the internship, and meet to assign a pass/fail grade at the end. See section 9 for the requirements of the internship.

4.4 Thesis

The final evaluation for thesis-based MSc students is the written and oral defense of a thesis before a thesis examination committee. The thesis is simply graded as pass/fail. Both components, oral and written, have to be successfully completed. If a student fails either part of the thesis, the curriculum and thesis examination committees will decide if the student may retry the defense. See section 11 for the requirements for a thesis and thesis defense.

4.5 Final Scholarly Paper

The final evaluation for course-based MSc students is a written paper which is graded as a pass/fail. One attempt to rewrite the paper is allowed. See section 10 for requirements of this paper.

5.0 POLICY & PROCEDURE FOR TRANSFER FROM MSc TO PhD

The following procedure is designed for use when the proposed PhD supervisor of a thesis-based MSc student enrolled in HRM recommends review for transfer to PhD status without completion of the MSc degree.

The objectives of the transfer procedure are:

- i) To assess the progress of the student toward the Master's degree.
- ii) To assess the potential of the candidate to carry out independent, original research.
- iii) To consider the suitability of the candidate's research for PhD thesis work.

5.1 Procedure

- i) The process is initiated by the proposed PhD supervisor after the student has successfully completed the following half courses:
 - HRM 721
 - an additional HRM research methods course
 - an HRM statistics course
 - two additional half course selected by the student and faculty advisor (this may include field-specific course(s) if applicable)

Normally, these courses should be completed in the first year of the MSc curriculum. **The student must have successfully completed five half courses and the research internship requirement before the transfer meeting.**

Students must notify the HRM Program Office three months prior to the date of their expected

transfer and meet with the Assistant Dean, HRM to discuss transfer procedures. Transfer meetings are not held during the last two weeks of August.

- ii) The student must have a minimum of an A- average in the MSc curriculum (the five half courses required for the degree) with no grade less than B.
 - Courses which apply to the thesis MSc Program must be completed before the transfer examination and cannot be transferred to the PhD.
 - If a formal request is made to transfer one half course, in excess of the minimum thesis MSc course requirement, as part of the PhD curriculum, it must be specified at the time of the transfer meeting.
- iii) The SGS Graduate Calendar stipulates that a student who wishes to transfer from MSc to PhD status must write a critical Transfer Report not sooner than 2 terms and no later than 22 months after initial registration, In the HRM MSc Program, this is normally between 12 months and 18 months of study for full-time students. Transfer beyond 12 to 18 months requires the permission of the Assistant Dean – HRM.
 - For part-time thesis MSc students, these periods will be extended to 20 and 36 months, respectively. The part-time MSc student would normally be expected to become a full-time student when successfully transferring to the PhD.

The report will consist of two parts:

1. a synopsis and discussion of the research work accomplished to date in the MSc curriculum (No more than 10 double-spaced pages)
2. a thesis proposal outlining the type of the methodological research to be carried out for the PhD degree (No more than 20 double-spaced pages).

Emphasis should be placed on the proposal. At this time, the student will be expected to have identified a PhD supervisor and the thesis proposal will be the result of discussions between the student and the proposed supervisor.

- iv) The student will present his/her work and ideas for PhD study orally to the student's Transfer Committee. This committee is composed of:
 - the student's proposed PhD supervisor
 - two members of the HRM PhD Admissions Committee, appointed by the Associate Dean of Graduate Studies (Health Sciences) in consultation with the Assistant Dean, HRM one member of the HRM graduate faculty who is a proposed member of the student's PhD supervisory committee and is a member of the HRM PhD graduate faculty
 - one member who serves as Chair, usually the Assistant Dean, HRM or a delegate

In the event that the Assistant Dean, HRM is also the proposed supervisor of the student requesting the transfer, the Assistant Dean should delegate the role on the student's Transfer Committee to one of the following HRM graduate faculty members: 1) Chair of the PhD Admissions Committee; 2) Chair of the Curriculum Committee; 3) Chair of the Board of Comprehensive Examination Chairs.

The Associate Dean of Graduate Studies (Health Sciences), in consultation with the Assistant Dean, HRM, will appoint the Committee members who are members of the PhD Admissions Committee. Information sufficient to decide whether or not to endorse the transfer must be presented to the Committee by the student. All Committee members have a vote. The student's presentation will be open to all interested faculty/students in the Program.

- v) The student's Transfer Committee, after questioning of the transfer candidate and following

closed discussion, will decide to recommend one of the following options to the School of Graduate Studies:

- a. The candidate be allowed to proceed directly to the PhD program, without completing the MSc degree. (This recommendation will require a unanimous committee vote.) The recommendation for transfer must identify which if any courses taken as a Master's student can be credited toward the requirements for the Doctoral program, and students must request this credit at the transfer meeting.
- b. The candidate be allowed to proceed to the PhD program, but only after completing the MSc degree and subject to approval by the Faculty Admissions & Study Committee. (This decision may be made by a majority committee vote and may provide deferred admission to the PhD program.)
- c. The candidate be allowed to proceed to the PhD program, but with concurrent completion of all requirements for an MSc degree within 2 months from the date of reclassification. This requires a majority committee vote and is normally used to provide admission effective Sept 1. Students who do not complete the MSc with 2 months of transfer will lose their status in the PhD program and be returned to MSc status.
- d. The candidate be invited to complete the MSc only at this time. (This decision may be made by a majority committee vote or if there is no agreement on options a through c.)

In the absence of agreement of the Committee, the candidate will be invited to complete the MSc only at this time.

5.2 Transfer Report Form

The form and description detailing the procedure to be followed are available on the HRM website: http://fhs.mcmaster.ca/hrm/info_resources.html

The Assistant Dean, HRM must be advised of the intent to transfer and the need for a transfer meeting. The time, date and place of the transfer meeting will be arranged by the HRM Program Office and the student, the transfer committee and the Assistant Dean, HRM will be notified.

Completed Transfer Report forms and the completed transfer report, corrected as necessary, must be returned to the HRM Program Office (HSC-2C1) after the examination.

5.3 Deadlines for Transfer

Meetings to decide on a recommendation for transfer from MSc to PhD status may occur any time during the year, but transfers will only become effective on the following dates:

September 1

January 1

May 1

The results of the transfer meeting and a complete copy of the Transfer Report must reach the HRM Program Office (HSC-2C1) **at least two weeks in advance** of the dates noted above.

6.0 POLICY re: OVERLAP IN HRM PROGRAM

Policy re: Overlap in HRM Program:

This is intended to clarify the Health Research Methodology program policy regarding the overlap between topics used in course assignments, theses and PhD comprehensive exams.

From time to time, faculty and students have had difficulty interpreting the current policy regarding overlap. Therefore, at the May 2005 GEC meeting we reviewed our policy and unanimously adopted the following policy interpretation statement.

The HRM program “adopts the principle that students avoid duplication, but we do allow overlap (methodological or content area) in courses and theses; adjudication is the responsibility of the students’ Supervisory Committee”.

Although the members of the GEC agreed that there can be overlap among course projects and thesis topics, there was no agreement regarding comprehensive examinations. GEC members felt that the Board of Comprehensive Examination Chairs (BCEC) should decide whether a PhD student can use similar topics for their examination.

7.0 POLICY re: ATTENDANCE IN HRM

ILLNESS OR UNAVOIDABLE ABSENCE DURING COURSE-WORK:

If a student is ill or legitimately absent (e.g. for personal or family reasons) prior to an examination or course deadline, please contact the **Course Coordinator** as early as possible, so that arrangements can be made for an extension or deferral.

The HRM Program Attendance Policy includes the following:

- Any absence must be due to a reasonable excuse that is exceptional and out of the control to some extent of the student (illness, death in family, special exams etc).
- One absence from a tutorial with a legitimate excuse is reasonable, 2 may be acceptable, but if you miss 3 tutorials you will NOT obtain credit for the course.
- If you are absent you will get 0 for participation on that day.
- In the event of greater than 2 absences you will be required to meet with the Assistant Dean - HRM. If not 'acceptable' (and the prior expectation is that most would not be), you will be asked to withdraw from the course. If you know that you will be unable to attend a session, please request permission from the course coordinator in advance of the tutorial.

Please note that student's should consult the course material for the specific attendance policy as this is the minimum requirement and each course may have additional requirements for attendance and participation.

8.0 SPECIAL PETITION REQUESTS FOR ALTERNATE COURSE

Requests for Alternate Course Requests:

If a student has taken a graduate level courses that is the equivalent of an HRM course, the student can submit a special petition to request approval that the equivalent course requirement has been completed. Please note that this special petition request is not to reduce the number of HRM courses a student is required to complete for the HRM degree. This process is typically initiated by students who have completed similar courses at other institutions and would like to count previously completed coursework towards the prerequisites and the student can register for other, more advanced HRM course(s). This is determined on a case-by-case basis and supporting documentation (i.e. course syllabus and signed petition form) must be provided. The special petition form is available from the School of Graduate Studies website: <http://graduate.mcmaster.ca/current-students/forms>

9.0 RESEARCH INTERNSHIP

The research internship allows students to develop skills needed to be a successful researcher.

9.1 Selection of Research Team

Each student should become affiliated with a research group or team in which HRM faculty participate during their time in the program. They will learn practical skills in research project management including skills in project development, selection of measures and measures development, data gathering, analysis and reporting that complement their formal course work. The student will ordinarily be assigned to a research team to which their faculty advisor belongs. If the student and faculty advisor prefer that the student join another team, the Assistant Dean, HRM will assist the student in identifying a suitable placement. At least one member of the research team must be a member of the Graduate Faculty in the HRM Program who is willing to supervise the research internship.

9.2 Requirements for Successful Completion

To successfully complete the research internship requirement, students must present a dossier that documents that they have developed skills in at least three areas of the five skill areas listed below by working with HRM faculty members and their research teams. We strongly encourage students to take the opportunity to develop as many skills as possible. The dossier submitted should describe the activities undertaken to develop each skill, an indication of the time spent in developing a given skill, and examples of the work done, where appropriate. The faculty member who supervised the activity must sign the dossier. At least one hundred hours must be devoted to developing these skills during the program at a minimum. We expect that most students will spend more time with a research group and gain considerable skills as a researcher from this hands-on experience. The research internship requirement must be met in order to graduate unless the student has requested and received an exemption.¹

At least three of the following skills must be developed during the research internship experience. Under each skill, examples of the types of activities that provide opportunities for skill development are given.

- **Proposal or Project Development**
 - For example:
 - Participate in developing the study question or the question for a sub-study
 - Contribute to developing study rationale by searching and summarizing the relevant literature
 - Participate in study design decisions (determining study population, sampling strategy etc.) by collecting information and/or perform calculations relevant to making study design decisions
 - Prepare a submission to Ethics Review Board regarding a grant proposal
 - Develop a study budget
 - Write a grant proposal or sections of it
- **Appropriate Selection or Development of Measurement Tools**
 - For example, sort through and weigh issues related to feasibility, reliability and validity to decide what tools should be used; develop and test the adequacy of a data extraction method.
- **Data Gathering**
 - For example, develop a data collection strategy; implement a data collection strategy; conduct Interviews; monitor data return and its quality; search for and screen articles; extract information for systematic review.

¹ Part-time students who are working in a research setting may request permission from the Program to take another course in lieu of this internship requirement. For such a request, the student must have the agreement of their faculty advisor and provide evidence that their work setting provides experiences comparable to the internship. Please have your employer send a letter to the Assistant Dean, HRM Program describing the research setting and the opportunities you have to participate in activities such as those provided by the internship. Students exempted from the research internship are expected to take an extra half course.

- **Data Analysis (and computing) Skills**
 - Use common computing package(s) to enter, check, analyse and/or summarize data – quantitative data or qualitative data.
- **Communication of Research Findings**
 - Develop one of the following or have a substantial role in its development: presentation, poster, newsletter, manuscript, abstract, workshop, etc.

In addition, *all students are expected to develop skills in project management as part of the internship*. They will observe and participate in study decisions by their involvement in such activities as: on-going attendance at team meetings, managing small sub-study, on-going attendance at meetings of investigators or sub-committees and/or meetings with community partners, etc.

This dossier prepared by the student at the end of the experience will be discussed with the research internship supervisor before it is submitted. Both student and supervisor write a brief evaluative statement about how well the learning objectives were met. The student should append relevant materials documenting the major activities during the internship. A pass/fail grade is assigned by the Internship Supervisor. Failure may occur if the student fails to spend at least 100 hours on the activities during the internship or does not meet the objectives of the internship, even if the minimum requirement of 100 hours is met. Failure of a component of this requirement does not lead to a recommendation for withdrawal. Rather successful completion of the requirement is needed for graduation. Forms documenting that the internship requirement has been met are kept with the student's file.

9.3 Monitoring this Requirement

The student and a HRM graduate faculty member of the research team designated to supervise the research internship will complete a form indicating the name of the supervisor, the start date of the student's involvement and the proposed activities. At the end of the research internship, a dossier is prepared and submitted along with evaluative statements from the supervisor and the student.

9.4 Changing Research Teams

Although students will normally spend the entire research internship with the same research team/supervisor, a student, if not comfortable with the learning experience offered by an internship, may make a request to the Assistant Dean, HRM to switch research teams/supervisors once only. If a change of supervisor is requested, the student will be required to complete a new form, available on the HRM website, indicating the supervisor, start date and proposed activities. Changing teams will often mean that the student needs to begin the experience again, unless substantial work was done with the first team.

9.5 Research Internship: Initial Plan

The Research Internship: Initial Plan form is appended in Section 20.0 – Forms and is available to download at: http://www.fhs.mcmaster.ca/hrm/info_resources.html.

9.6 Research Internship: Final Report

The Research Internship: Final Report form is appended in Section 20.0 – Forms and is available to download at: http://www.fhs.mcmaster.ca/hrm/info_resources.html. All forms must be complete and submitted to HRM Program in HSC-2C1.

10.0 SCHOLARLY PAPER

10.1 Guidelines: How to Complete the Scholarly Paper

Who is Eligible?

Students completing the course-based HRM master's degree need to complete the Scholarly Paper as part of their degree requirements.

Purpose

The purpose of the Scholarly Paper is to demonstrate integration of learning across the courses that a student has taken in the HRM Program. Your paper should reflect your understanding of:

- i) Methodological issues and biostatistical concepts
- ii) Your ability to independently apply them and discuss them in a concise, critical and coherent manner

The paper should not involve the collection or analysis of primary data, the conduct of research with subjects or design of a research protocol. It is a scholarly essay, not a thesis.

Format and Grading

The paper must be 15 to 20 pages, excluding references and appendices, double-spaced using 12 point type and one inch margins. It will be judged on a pass/fail basis. There is no reason that your paper cannot be used for another purpose afterwards (e.g., publication of a paper on the topic or integrated into the introduction of a new research grant that you plan to write).

Examples

- Review a small area of research (e.g., treatment studies with children who have a specific, rare health problem), write a critique of the methods used and suggest what needs to be done to develop better information in this area
- Compare and contrast the methods involved in several papers that have disparate findings about the same topic of interest to you. Discuss the differences and similarities in methods and their likely impact on the findings. Briefly describe the kind(s) of research that would need to be done to resolve the current controversy.
- Discuss such methodological issues as confounding or blinding and how they can best be managed in the research area in which you are interested (e.g., the issues related to blinding in the evaluation of particular surgical interventions).
- Discuss a current methodological controversy(ies) in your particular field of interest, the origins and the views of leading proponents of each side of the controversy, drawing your own conclusions.

Timing

The final scholarly paper may be written during the term that you are completing your last course, if you are

only taking one course that term. Otherwise, the paper is usually written after you complete all course work.

10.2 Steps for Completing this Requirement

1. **Notify Lorraine Carroll (carrl@mcmaster.ca) that you are interested in beginning the approval process for a Scholarly Paper topic.**

She will send you an electronic copy of the Scholarly Paper Topic Approval Form.

2. Complete the Scholarly Paper Topic Approval Form and email it back to Lorraine Carroll.

An electronic copy of the Scholarly Paper Topic Approval Form will then be circulated to the members of the HRM Curriculum Committee. The Committee will approve the topic within seven to ten days* after submitting the approval form.

*Please note during the summer months this process can take longer due to vacations and the unavailability of faculty. Please note that the HRM Program Office is doing our best to ensure that each submission is processed in a timely manner.

3. Acknowledge the due date of your paper.

Once the Curriculum Committee approves your topic, you will be informed and the due date will be set. You have four weeks to write the paper following notification that it is approved.

The final paper is normally read by the student's advisor and one other HRM graduate faculty member, who is determined by the HRM Curriculum Committee. If the topic is very different from the advisor's interests, another faculty member may be chosen as a reader. Both readers are also asked to provide feedback to the student by the specified due date.

4. Submit your completed paper four weeks after the Curriculum Committee has approved topic.

On the day your scholarly paper is due, submit an electronic version via email to Lorraine Carroll (carrl@mcmaster.ca).

Once the final scholarly paper is handed in, it is sent electronically by Lorraine to your two readers.

5. Get feedback from your two readers.

Feedback to the student about whether he/she passed or failed will usually occur within one week of receipt of the paper. If the paper is deemed unsatisfactory, one rewrite will be allowed within a two-week period, after formal written notification to the student from the Chair of the HRM Curriculum Committee. A pass/fail decision on the rewrite will be made and feedback given within one week.

6. Complete the School of Graduate Studies paperwork.

Once a student passes the final scholarly paper requirement, the Notification of Completion of HRM MSc Requirements Course-based Option form must be completed to permit graduation. This form is available from the HRM website at http://www.fhs.mcmaster.ca/hrm/info_resources.html. The completed form is submitted to Lorraine Carroll in HSC-2C1.

7. Other Guidelines:

The scholarly paper, like final papers for courses, is to be written solely by the student. Make sure that you references are made appropriately and avoid any suggestion of plagiarism. Please read McMaster's policy on plagiarism on the university website: <http://www.mcmaster.ca/academicintegrity/students/typeofad/plagiarism/>

The advisor should not read the paper before it is submitted or be involved in helping the student write it. He/She may suggest key references.

Readers of the paper may provide the student with additional feedback at their discretion.

This feedback is sent by the reader via the HRM Administrative Assistant to the student. It is a courtesy in that we know some students hope to use the paper for another purpose (e.g., publication or as the introductory part of a grant application.)

10.3 Special Permission

If you wish to deviate from the above time-lines you will need to have **special permission** from the Assistant Dean, HRM and the Associate Dean of Graduate Studies (Health Sciences).

The usual time-line is as follows: Once your scholarly paper proposal is approved you can expect to be finished 7 to 8 weeks later including writing time (4 weeks) and review and approval (2 to 3 weeks, if no major rewrite is required).

Facilitated time-lines of 4 weeks from approval of topic to approval of final paper are possible, if agreed to in advance by all parties.

Students hoping to make 'last-chance' timelines for graduation with the School of Graduate Studies (SGS) must submit their paper at least 5 weeks before the SGS 'last-chance' deadline.

No facilitated time-lines will be accommodated without prior discussion.

10.4 Scholarly Paper Topic Approval Form

The application form is appended in Section 20.0 – Forms and is available to download from the HRM web site at: http://www.fhs.mcmaster.ca/hrm/info_resources.html

11.0 MSc THESIS

11.1 Ethics Proposal

Each student would be expected to include in their graduate thesis a section (of varying length according to the research) addressing the ethical considerations associated with their project including ethical concerns about the hypothesis, question and findings, as well as the ethical issues related to the proposed methodologies.

It could be assumed that any faculty member with suitable expertise to supervise a student in a given topic would also be capable of providing guidance and support regarding the ethical considerations of the methodologies and subject area selected by the student. Where the supervisor feels added support would be needed this could be provided by a suitable alternative without needing to be part of the supervisory committee in a formal way. Please direct any questions to Dr. Lisa Schwartz, Arnold L. Johnson Chair in Health Care Ethics and Associate Professor, Department of Clinical Epidemiology and Biostatistics (schwar@mcmaster.ca).

11.2 Guidelines

Rationale

The School of Graduate Studies of McMaster University provides a number of options for the completion of requirements for a Master's degree. One option requires the writing of a thesis. The thesis offers students the opportunity to undertake a major piece of investigation on a topic of their own choosing, and thus constitutes, for many students, their first piece of independent professional work. It is a useful training experience for people who plan research careers and may help them launch their career.

Areas for Acceptable Thesis Topics

The Master's degree must provide a demonstration of competence on the part of the student as

an independent investigator. Students are required to explore a topic in considerable depth, to write up the findings, to present the findings to the Program, and to defend these findings in a public forum. To accomplish these goals, students may choose to design or execute a survey or trial of some clinical or policy manoeuvre; they may undertake the definition and measurement of a phenomenon pertinent to clinical epidemiology, population health, or health services and policy research, health education research or health economics. Or they may engage in the evaluation or analysis of a therapeutic or diagnostic procedure, or of a health policy. The thesis will be a coherent document that provides a complete and systematic account of the research accomplished or designed by the writer. While a master's degree may advance our understanding, this is not a necessary condition that a master's thesis must meet.

If a design type thesis is undertaken, the question must be specific and researchable. The standards used to evaluate a design thesis are those of a typical grant review committee. The design should be feasible to execute and potentially fundable. Research protocols developed for HRM courses may not be used for a design thesis.

The Selection of a Thesis Topic and Supervisory Committee

Thesis-based students are supervised by a committee. The supervisory committee is composed of a supervisor and at least two other HRM faculty members (internal committee members). Occasionally a third internal reader may be added to the committee. The committee should be balanced in terms of background or expertise and include obvious content experts from the Program.

An external examiner, at arms-length from the project, is added to the committee when the thesis draft is finalized for defense. The external examiner reviews the final draft and participates in the defense, but is not involved in the ongoing supervision of the project.

The policy of the HRM Program is that students should choose supervisors and readers who will be most helpful to them in the preparation of their theses. While the supervisor takes on the main task of directing progress, it is important that readers have the opportunity to react early to major methodological decisions. This can be achieved through a supervisory committee meeting at the point when the main approach is clear. An oral defense can only be planned when the committee agrees that the written thesis is acceptable. The roles of the various members of the committee are described in detail below.

Note: A thesis committee is also expected to advise the student on the selection of courses, which must be appropriate to the thesis; e.g., randomized controlled trials probably should have completed HRM *730 and *733, development or application of a measurement scale should have completed HRM *727, and so on.

The Supervisor

The supervisor (or first reader) of a HRM thesis must be an approved member of Graduate Faculty in HRM to act in this capacity. If in doubt, please consult the Program Assistant. The supervisor assumes responsibility for the management of the thesis. Specifically, s/he is responsible for providing direction to the student, advice on data sources and potential avenues of approach, instructions on the proper content and form of the thesis, review of the student's progress, and serving as the first reader of the thesis. It is the responsibility of the supervisor to help the student think through methodological issues and to raise questions about possible methodological decisions faced/taken by the student. The supervisor is not eligible to be chair of the thesis defense examination.

A student selects a topic of her/his own choice along with their thesis supervisor, who helps the student select the remaining members of the supervisory committee. Students who receive stipends from a faculty research grant are expected to develop a thesis topic that relates to the supervisor's research.

If the student is not financially supported by a stipend from their supervisor, the student's faculty advisor may or may not be the thesis supervisor. But, the faculty advisor should discuss and offer suggestions about the appropriateness of not only the thesis supervisor but also of the other committee

members. The supervisor typically has competence and interest in the area chosen. After the proposed supervisor has been approached and agreed to take on a student and her/his thesis, the student should discuss the make-up of the remainder of the committee with her/his supervisor.

The Second Reader

The second reader must be selected from faculty with graduate faculty status in HRM. This faculty member should be chosen in consultation with the supervisor. The second reader is responsible for providing methodological advice and criticisms to the student during the preparation of the thesis, and when s/he reads the thesis for approval. The second reader is eligible to be chair of the thesis defense examination.

The Third Reader

The criteria for selection of the third reader are usually the same as that for the second reader. However, occasionally the third reader may be a member of graduate faculty outside the HRM Program but within the Health Sciences Graduate Programs. The third reader is eligible to be chair of the thesis defense examination.

The External Reader

The external reader is contacted directly by the thesis committee and must be approved by the Assistant Dean – HRM in writing. The external reader may be any faculty member who is approved to be involved with the supervision of graduate students at McMaster or any other university, and may be a member of the HRM program. The external reader should be appointed at least two months before the thesis is to be defended; the final draft of the thesis must be in the hands of the external reader at least one month before the defense. The external reader will generally be knowledgeable about some aspects of the clinical, health care, or methodological aspects of the thesis topic (e.g. acts as a content expert). External readers are expected to send their thesis report to the HRM Program Office via Lorraine Carroll (carrl@mcmaster.ca) before the thesis defense takes place if they do not attend the thesis defense. Email is acceptable. The email or letter should be copied to the thesis supervisor.

The program must seek approval of the external reader from the HRM Program. The name and position of the proposed external reader should be sent to the Assistant Dean, HRM along with his or her qualifications to act as an external reader. The external reviewers must be at *arms-length from the project* and not be involved in the supervision of the student until the end of the process, to review the final written document after the internal committee has approved it for defense.

Thesis Proposal Approval Process

Once a student has found a thesis supervisor, usually the idea for the thesis proposal has already been discussed and accepted in principle. The student drafts the proposal and may choose to give it to her/his thesis supervisor initially for comments before distributing it to the remainder of the committee. Alternately, the student may choose to distribute it to all internal supervisory committee members at the same time. Please note that the external member of the committee is not involved in approving the proposal.

After the final draft of the proposal is ready, the student distributes it to her/his committee members. The thesis supervisor is responsible for setting up a meeting which must be attended by the student, thesis supervisor, and the internal HRM faculty readers. The meeting should be held within one month of distribution of the final draft. The meeting itself is actually a mini-defense of the thesis proposal. Each committee member becomes aware of exactly what the other members of the committee expect of the student, and have the opportunity to become involved in the whole process at the onset. Questions or contentious issues can be answered and sorted out to everyone's satisfaction. Also, it is a time that the committee negotiates how it will work together and assist the student during the development of the thesis.

When the proposal has been accepted by the committee, the student and her/his committee members, sign the proposal. –Make sure to get the signatures while all parties are in the room together. The student must also sign a statement indicating that the thesis does not present a significant overlap with other papers written for any HRM courses.

The thesis proposal is now ready for submission to the HRM faculty for final approval.

NOTE: THE STUDENT IS RESPONSIBLE FOR PROVIDING A COPY OF THE PROPOSAL ELECTRONICALLY TO THE HRM PROGRAM OFFICE FOR DISTRIBUTION TO THE HRM FACULTY.

The proposal will be circulated to faculty members in HRM via electronic mail. This gives all faculty members the opportunity to comment or question anything in the proposal. If this occurs, the faculty member approaches the thesis supervisor directly for clarification. Unless objections are raised that indicate the proposal needs to be revised and resubmitted, two weeks after distribution, the thesis proposal is deemed acceptable by the HRM Program. If the student subsequently does what is proposed, the effect of the faculty approval is that the faculty will subsequently raise no objection as to the legitimacy of the topic as a thesis subject.

Thesis Proposal Instructions

The proposal should be limited to two pages and should include the following:

- a. A title
- b. A one-sentence statement of the question to be posed in your thesis
- c. The type of thesis - design or analysis design, and interpretation of data
- d. The most important part of this submission should list and briefly describe the methodological or analytic problems which you think you may encounter and will have to solve in the execution of your thesis
- e. A statement of why you have selected this topic
- f. A brief statement of the implications of this work to the understanding of health and health care
- g. List your thesis committee members including the external reviewer, if identified
- h. Sign the declaration that the thesis does not represent a significant overlap with papers written for any HRM courses.
- i. Ensure that all signatures are in place.

MSc Thesis Supervisory Committee Meetings

Best practices in the HRM Program suggest that HRM MSc thesis based students have contact with their supervisor in addition to meeting with their supervisor and other members of the supervisory committee at least every 6 months to ensure that the student and the student's project is on track and they are able to complete their HRM MSc degree within the maximum 2 year timeframe.

The Reading of the Thesis

The supervisor, second and third readers must read the thesis and each conclude that it is in an acceptable state to proceed to a defense. Typically, a student will provide each reader with a completed first draft, and the readers will make whatever recommendations they feel are necessary for revision so that subsequent drafts and the final draft will be acceptable. The external reader will not be involved at this point.

If necessary, it is the responsibility of the supervisor to get the readers and the student together to obtain a common understanding of what changes in the first draft are necessary for an acceptable subsequent document. If the recommendations for change are at all contentious or detailed, the student is entitled to a written statement from his committee outlining exactly what has to be done. When the student has presented a final draft which each of the inside readers concludes is an acceptable document, the committee will confirm this among themselves and then give the student permission to book a date for the thesis defense. The final draft must be in the hands of the committee, including the external reader, at least four weeks prior to the defense.

The external reader must be given a written copy of the thesis at least one month before the oral defense. The external examiners report will be taken into consideration during the defense if an external examiner does not attend the defense. The MSc thesis defense, when decided, will then be set up by Lorraine Carroll, HSC-2C1.

Attendance at the Thesis Defense

Every effort should be made to have all thesis committee members present at the MSc defense. In addition, the student's faculty advisor, if not a member of the committee, should also attend the defense. If circumstances dictate that a committee member absolutely cannot be present, then s/he must contact the HRM Program Office who, on advice of the Assistant Dean, HRM will appoint a substitute examiner to attend the defense and present comments and questions on the written document. If the external reader cannot be present, no substitute member is required to attend, but her/his decision concerning the acceptability of the written document should be sent, in writing, to Lorraine Carroll, carrl@mcmaster.ca), along with any questions that are to be directed to the candidate following her/his oral presentation.

If a committee member cannot attend the defense at the last minute, s/he should notify Lorraine Carroll in the HRM Program Office, HSC-2C1 (carrl@mcmaster.ca) and send comments and questions to the thesis supervisor (a copy must be sent to Lorraine Carroll, carrl@mcmaster.ca).

Thesis defences are open to all members of the University community.

Booking a Thesis Defense Date

- Make sure your thesis committee has given you permission to set a date.
- Contact Lorraine Carroll, HSC-2C1 x27718, carrl@mcmaster.ca
- Give the latest title of your thesis - sometimes it changes from that on the initial proposal.

Oral Defense Procedure

The examination will be chaired by either the second or third reader, not by the supervisor. At the defense of the thesis, the student is expected to present a brief (not longer than 30 minutes) presentation of the thesis with particular emphasis on the methodology. The presentation is expected to be orderly and concise. Following this, the student must be prepared to defend both his/her presentation and written thesis. Initially, questions will be asked by the thesis readers, then by other members of the faculty, and finally by other members of the audience.

During the question period following the oral presentation, the readers may pose questions concerning either the oral presentation or the written document. The candidate may be questioned on any aspect of the thesis, but most questions should emphasize the methodological aspects. Candidates can be expected to justify or clarify their responses, but it is important that readers avoid the perception of “badgering” or engaging the candidate in debate.

At the conclusion of the defense, the supervisory committee will reach a judgment as to whether or not the defense was acceptable. If the defense is deemed unacceptable, the Examination Chair will provide a statement of the deficiencies and the improvements that must be made if a second defense is permitted. A second defense would be justified if the student appears to lack understanding of design issues implicit in the work or fails to justify decisions taken on methodological grounds.

Any corrections or modifications which the examiners feel should be made in the written thesis should be communicated in writing by the Chair to the candidate and the thesis supervisor, who will take responsibility for ensuring that the corrections/modifications are properly incorporated into the thesis.

Prior to the thesis defense, the typed document must be in its final draft form.

A thesis may be submitted at any time of the year.

Deadlines, Style Requirements, and Other Hurdles

The School of Graduate Studies Graduate Calendar contains a number of formal requirements pertaining to dates when theses must be submitted, the style which theses must follow, costs of binding theses, maximum permissible time for completion of degree requirements, and continuous registrations. It is the responsibility of the student to understand and comply with each of these requirements. In particular, students must be aware that to be eligible for convocation in the autumn or spring, there are deadlines by which theses must be submitted to the School of Graduate Studies (GH 212). Please refer to the Guide for the Preparation of Theses: <http://graduate.mcmaster.ca/current-students/completing-your-degree/649-step1-write>

Expected Duration of a Thesis

It is important to emphasize that students are writing a Master’s thesis, not a PhD dissertation. For many MSc theses, a document of 100 pages in length should be adequate. The program expects that the average time for a thesis to take is three to six months of full-time intensive work following the selection of a topic and successful acquisition of data. While the efforts and endeavours of individual students will vary, and while some students may choose not to devote their full time to the thesis, the program does not expect the work for a thesis to extend for more than a year. In negotiating an appropriate project, consider also that a full-time student is expected to complete 5 courses, an internship and a thesis within 6 terms (2 years).

Final Submission of a Thesis to the School of Graduate Studies

Students are responsible for the costs associated with typing, preparing, printing and binding their theses. As of June 2014, students can submit their final thesis submission to macsphere: <https://macsphere.mcmaster.ca/>. For Graduate School information on the submissions of MSc theses visit: <http://graduate.mcmaster.ca/current-students/completing-your-degree/649-step1-write>

After your successfully defended thesis has been approved in writing by your supervisor, students may print a final copy of the thesis for the supervisor and other members of supervisory committee (if appropriate). At that time you will be required to submit the final submission, after which you will complete a convocation and alumni form. At this point you have done everything you need to do towards completion of your degree. Happy convocation!

12.0 CE&B DEPARTMENT SPECIAL EVENTS

CE&B presents “Special Events” such as rounds, lectures, research days, and symposia. You will receive advance notice of these events via e-mail. They are also listed on the CE&B website at: http://www.fhs.mcmaster.ca/ceb/events_upcoming.htm. Please check this website periodically in order to keep up to date on department events.

Three special lectures are held each year: the Labelle Lecture, the Enkin Lecture, and the HRM Alumni Lecture.

All students are expected to attend these department events. These will be very beneficial to you as methodological issues are discussed in the context of a wide variety of research questions.

In addition, individual research units may hold their own rounds. If your advisor belongs to one of these units, you are expected to attend these as well.

13.0 HELPFUL RESOURCES

<p>The Health Research Methodology website</p> <p>information for students, faculty and staff, including:</p> <ul style="list-style-type: none"> ▪ degree requirements, course listing, faculty information ▪ news & announcements <p>http://www.fhs.mcmaster.ca/hrm/</p>	<p>The Health Sciences Graduate Programs website</p> <p>information for students, faculty and staff, including:</p> <ul style="list-style-type: none"> ▪ scholarships ▪ FHS Research Plenary ▪ Student Resources <p>http://fhs.mcmaster.ca/grad/index.html</p>
<p>The Department of Clinical Epidemiology & Biostatistics website</p> <p>information for students, faculty and staff, including:</p> <ul style="list-style-type: none"> ▪ faculty listing, research groups ▪ key contact people in CE&B ▪ upcoming events <p>http://www.fhs.mcmaster.ca/ceb/</p>	<p>The School of Graduate Studies website</p> <p>information for current students including:</p> <ul style="list-style-type: none"> ▪ forms, guidelines, graduate calendars ▪ health plan info, dental plan info ▪ payroll info ▪ thesis regulations <p>http://www.mcmaster.ca/graduate/current.html</p>