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February 23, 2012

To : Graduate Council Members

From : Medy Espiritu
Assistant Secretary and SynApps System Administrator

The next meeting of Graduate Council will be held on **Tuesday, February 28, 2012** at **2:00 p.m.** in **MUSC-311/313**.

Listed below are the agenda items for discussion.

Please email *espiritu@mcmaster.ca* if you are unable to attend the meeting.

A G E N D A

I. Minutes of January 31, 2012 meeting *(not available)*

II. Report from the Associate Vice-President and Dean of Graduate Studies

III. Report from the Associate Deans of Graduate Studies

IV. Report from the Assistant Dean, Graduate Student Life and Research Training

V. Report from the Associate Registrar and Graduate Secretary

VI. New program: Master of Finance (*Dr. T. Chamberlain)*

VII. Report from the Faculty of Health Sciences Graduate Policy and Curriculum Council - meeting of December 6, 2011 *(Dr. C. Hayward)*

VIII. Change name of scholarship

Current name: The AIC Scholarship (an MBA award established in 2004)
New name: The Michael Lee-Chin & Family Scholarships

Rationale for change: AIC, which was founded and owned by Michael Lee-Chin, ceased operations in 2009. McMaster is changing the names of everything on campus that features the AIC name, at the request of Michael Lee-Chin. This includes an institute, an endowed chair and professorship – in addition to the scholarship.

IX. Other business

McMaster University

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Associate Dean
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February 22, 2012

Dr. Allison Sekuler
Chair, Graduate Council
Associate Vice-President and Dean, Graduate Studies
McMaster University, Gilmour Hall 212

Dear Dr. Sekuler:

Please find attached a proposal for a Masters of Finance (MFin) program which the School of Business is proposing to launch in the fall of 2013. This is a request to take this proposal to Graduate Council for approval on February 28, 2012 before it is taken to the Faculty of Business meeting for approval on March 15, 2012. Normally proposals must be approved by the Faculty before being taken to Graduate Council.

The two primary reasons for this request are as follow. First, there is some urgency to this matter if the program is to be approved internally and externally by the fall of 2012. Final external approval would give it a full recruiting season, beginning later in the fall of 2012, for the first cohort of students to enter in September, 2013. The urgency is that if the proposal is approved by Graduate Council on February 28 and by the Faculty of Business on March 15, it can go to the University Planning Committee (UPC) on March 21 and to Senate on April 11. If the proposal has to go to the Faculty of Business first (on March 15), it will then go to Graduate Council on March 27, UPC on April 18 and to Senate on May 9. This makes a whole month's time difference, just as we enter the critical period when external reviewers would be involved. It can prove difficult getting external reviewers during the summer period when they are preoccupied with research related activities. The month's difference could make a significant difference in the date of final approval externally. The second reason for asking for the early date to Graduate Council is that Dr. Trevor Chamberlain, who is the person most knowledgeable about the proposal, will be out of country for the March 27 meeting of Graduate Council. He will be available for the February 28 meeting. His presence can be an invaluable aid to Graduate Council as it considers the proposal, particularly if it wishes to delve into subtle issues.

If this proposal were to be taken to Graduate Council before going to the Faculty of Business it is our understanding that Graduate Council would approve it subject to the approval of the Faculty of Business. It is also our understanding that if, after approval by Graduate Council, it was taken to the Faculty of Business and changes were made to it there, the changed proposal would have to return to Graduate Council for approval.

I do hope this request will be granted. It could make the difference between a strong and a weak launch of the program in September, 2013.

Sincerely,

John Medcof
Acting Associate Dean

McMASTER UNIVERSITY

GRADUATE PROGRAM PROPOSAL BRIEF

FOR THE PROGRAM

MASTER OF FINANCE

Date: February 2012 (Revised)

Master of Finance Program Committee: Trevor Chamberlain, Clarence Kwan, Jiaping Qiu and Sudipto Sarkar

Research Assistant: Rahman Khokhar

CONTENTS

1. PROGRAM

1.1. Consistency of program with University's mission and academic plan

Over the past decade, finance professionals have faced the prospect of an increasingly complex and technical work environment as a result of globalization, technological change, increased market volatility and the rapid growth of derivative securities and the markets in which they trade. This has created a demand for creative and innovative finance specialists who are equipped to solve problems in, *inter alia*, securities valuation, trading strategy, risk assessment and investment management.

The goal of the proposed Master of Finance program is to offer students a high-quality course of study that will develop and enhance their understanding of the principles and practice of modern finance. In doing so, it will prepare students to deal with complex concepts and the body of knowledge required of modern finance professionals.

Learning outcomes expected from the program include:

1. The ability to apply appropriate principles of valuation to financial assets, including derivatives.
2. The ability to engage in applied research and determine whether firm investment and corporate policies create value.
3. The knowledge required to evaluate financial risk and devise appropriate risk management strategies.
4. The knowledge required to assess risk-return tradeoffs in investment management.
5. The ability to model financial problems to facilitate decision making.
6. The ability to communicate effectively, both orally and in writing, in a professional setting.
7. Ethical behaviour consistent with academic integrity and appropriate professional judgements.

Central to the program is its intention to offer courses that are taught by active researchers, and in areas that are closely related to their research. In doing so, it aspires to foster critical thinking and a passion for learning among its students. The program is linked to the scholarly interests and activity of members of the Finance and Business Economics Area in the Faculty of Business. At the same time, it is cross-disciplinary inasmuch as it will draw upon the academic expertise of members of a number of other disciplinary units within the University. In doing so, it is expected to foster more collaboration in scholarly work among members of the Finance and Business Economics, Operations Management, and Accounting and Financial Services Areas in the Faculty of Business and the Department of Mathematics and Statistics in the Faculty of Science.

1.1.1. The need for such a program in Ontario

There are a number of universities in Ontario offering master's degree programs specializing in finance, albeit with a variety of foci. The table on the following page provides summary information for master's degree programs in finance offered by Ontario universities.

These programs can be classified as mathematical, specialized or general programs, or as terminal degree versus intermediate degree programs, which prepare students for Ph.D. studies. The proposed Master of Finance is a program that would provide an in-depth training in finance, emphasizing the development of analytical skills for students who aspire to pursue careers in mainly financial, but also non-financial, organizations. The job market for students with both general and

specialized finance training is large and stable. Mathematical finance programs, in contrast, are targeting a niche market that requires sophisticated mathematical skills. Graduates of such programs compete for jobs with Ph.D. degree holders from fields such as physics, engineering and mathematics.

School	Degree	Focus of the program	Program Length	Tuition (2010-11)
Brock University	Master of Science in Management (in the field of Finance)	Prepare students to pursue Ph.D. degree in Finance	20 Months	$ 13,248 / $ 28,669
McMaster University (Department of Mathematics)	Master of Science in Financial Mathematics	Mathematical finance	8 Months	$ 6,786 / $ 14,853
Queen's University	Master of Science in Management (in the field of Finance)	Prepare students to pursue Ph.D. degree in Finance	12 Months	$ 7,261 / $ 12,913
Queen's University	Master of Finance (Part-time) – Toronto	Specialized finance education	10 Months[3]	$ 34,000 / $ 55,000
University of Toronto (Department of Mathematics)	Master of Mathematical Finance	Mathematical finance	12 Months[1]	$ 38,210 / $ 38,210
University of Toronto (Department of Economics)	Master of Financial Economics	Specialized finance education	16 Months[2]	$ 35,847 / $ 50,632
University of Toronto (Rotman School of Management)	Master of Finance (Part-time)	Specialized finance education	20 Months[3]	$ 76,323 / $ 76,323
University of Waterloo (Department of Statistics and Actuarial Science; School of Accountancy)	Collaborative Master's Program in Finance (Master of Mathematics; Master of Accounting)	Mathematical finance	16 - 20 Months[4]	$ 10,950-$ 14,560 / $ 19,929-$ 26,574
Wilfrid Laurier University (Laurier School of Business & Economics)	Master of Finance	Specialized finance education	20 Months[5]	$ 20,000 / $ 29,500
Wilfrid Laurier University (Department of Mathematics)	Master of Mathematics for Science & Finance	Mathematical finance	12 Months	$ 22,395 / $ 30,576
York University (Schulich School of Business)	Master of Finance	Specialized finance education	12 Months	$ 38,568 / $ 45,000
University of Windsor (Odette School of Business)	Master of Management (Int'l Accounting & Finance)	General finance education	12 Months	- / $ 28,500
Lakehead University (Faculty of Business Administration)	Master of Science (in the field of Finance)	General finance education	12 Months	$ 11,308 / $ 15,920
Ryerson University (Economics Department)	MA in International Economics & Finance	General finance education	12 Months	$ 8,709 / $ 17,914

[1] Four months internship during Winter. If hired, students get $ 17,000 Tuition Rebate.
[2] Four months summer internship with expected income of $ 10,000 - 25,000 for 4-months.
[3] Evening and Weekend Program.
[4] Course Work Option - 3 Study Terms and 1 Internship Term, Thesis Option - May require 4 - 5 Academic Terms.
[5] 8 Month Co-op and Co-op Fee is extra. Co-op Income is not provided.
Note: Tuition fees include Incidental and/or Ancillary Charges; however, they do not include Health Insurance for VISA students.

The Master of Finance degree is different than an M.B.A. with a specialization in Finance. Students in the Master of Finance program would focus on becoming finance specialists with appropriate preparation in subjects such as statistics, computation and econometrics. The finance training would be deeper than that offered to students doing an M.B.A. degree with a Finance specialization. M.B.A. students with a specialization in Finance obtain a broadly based management education with some emphasis on finance. Such a program is a more suitable preparation for careers in which a broad portfolio of management skills is important, such as commercial banking or corporate finance. Graduates of the Master of Finance program would be expected to target areas where analytical skills and a depth of understanding are important, such as portfolio management, hedging and risk management, currency and derivatives trading, fixed income analysis and equity research.

Currently, three full-time programs in Ontario have a focus somewhat similar to the proposed Master in Finance program: the Master of Financial Economics (M.F.E.) offered by the University of Toronto (UofT), and the Master of Finance programs offered by York University and Wilfrid Laurier University. The M.F.E. program at the UofT comprises twelve months of course work and a four-month internship. While the proposed McMaster program does not include an internship, the program content is closest to the UofT program among those offered at Ontario universities, the primary difference being that the proposed McMaster program would put more emphasis on the development of quantitative skills in its required courses. The following table shows the numbers of applications and registrations in the M.F.E. program at the University of Toronto since its inception in 2003.

Year	2003	2004	2005	2006	2007	2008	2009	2010
Number of Applicants	189	154	184	195	189	300	N/A	250
Number of Registrations	16	18	22	22	19	24	21*	25

*Taken from employment statistics page of program's website.

The above data provide an indication of the potential demand for the proposed M.Fin. program given the similarity between the two programs. As the above figures indicate, the number of applicants for Toronto's M.F.E. program is well above 150 per year, while the number admitted annually has only been about twenty, with most of those admitted registering. Moreover, these numbers were relatively stable between 2003 and 2007, and have increased since 2008. The above figures suggest that the competition to get into a reputable graduate finance program is robust and that there is a large gap to be filled.

An M.B.A. graduate specializing in Finance will obtain a broader business training than a graduate from the Master of Finance program. By offering both an M.B.A. Finance specialization and a Master of Finance program, we will be able to offer qualified applicants a choice between breadth and depth in their educational opportunities.

Though the Master of Finance program may attract some students who currently choose the M.B.A. program with a Finance specialization at McMaster, we believe that the M.Fin. program will appeal primarily to students who are presently not coming to McMaster for master's level finance studies. That is, they are applying to other Canadian schools, as well as abroad (particularly the US and the UK), to do specialist programs in finance. Moreover, we expect that the program will also appeal to students who are contemplating a Ph.D. program in finance and who have not studied finance at the graduate level previously.

1.2. Clarity and appropriateness of program requirements and learning outcomes in meeting University's Degree Level Expectations

1.2.1. Depth and breadth of knowledge

The program is intended to provide students with a solid understanding of the tools required to frame, assess and expedite the solutions needed to address the increasingly complex problems faced by financial decision makers, particularly those working in the financial industry. It is designed so that students will first be equipped with essential skills and knowledge in economics, accounting and statistics, followed by the application of these tools to core problems in modern finance. In addition, students will have the opportunity to pursue topics of particular interest and relevance to their

anticipated careers through the choice of four elective courses. The program will also provide a solid grounding in essential tools and core financial knowledge for those students intending to pursue a Ph.D. degree in finance or cognate subjects.

1.2.2. Research and Scholarship

The program is a course-based program, with an option to do a research project in lieu of one course. The required courses will focus on developing students' analytical skills and understanding of the core concepts of modern finance. As noted in part 1.2.1, the tools and knowledge students acquire at the beginning of the program will be used to formulate and assess important problems in the field. Students will be expected to read and evaluate current literature and to be able to utilize their knowledge in investigating the types of problems they would encounter in their professional careers. Their knowledge and understanding will be measured in a variety of ways, including problem solving, discussion of scholarly papers, class presentations of their work, written assignments and papers, and course examinations.

1.2.3. Level of application of knowledge

Students will be expected to utilize the skills learned in the economics, accounting and statistics courses, as well as their knowledge of finance, in a variety of applications. They will also have the opportunity to use their skills and knowledge to undertake supervised research of their own in the Business F719 independent project course.

1.2.4. Professional capacity/autonomy

The program is designed with the primary objective of preparing students for professional careers in industry, and the financial industry in particular. While team work is a central tenet of contemporary business education, students will be responsible for their own success in the program and for taking the appropriate initiatives to ensure that success.

In addition, a central theme of modern finance is decision-making under uncertainty. This will characterize the professional life of graduates of the program. For this reason students will be expected to assess information critically, formulate problems carefully and devise strategies to manage the risks inherent in financial decision-making.

Finance is a field that has both grown and changed over the past thirty-five years, and, as the 2008 financial crisis demonstrated, continues to present significant challenges to industry practitioners, regulators, public policy-makers and society at large. Students will be encouraged to think on their own and to appreciate that one's knowledge is never complete. Continuing professional education is not only a necessity for being a successful practitioner in the financial industry, but also is required by most professional organizations to maintain certification.

Ethical behaviour within the program and beyond is a necessity. Professional organizations within the financial industry have protocols outlining what is expected of their members, as do most, if not all, financial firms. In order to foster a culture that emphasizes the importance of ethical behaviour and to prepare students for careers in which it will be expected, Business F736: Ethics and Professional Practice in Finance and Business F737: Financial Fraud and Surveillance are included on the list of electives open to Master of Finance program students. Though not required, students will be encouraged to take at least one of these courses among their electives.

Finally, finance, as an academic discipline, relies on models with explicit sets of assumptions. In order to use these models in an applied context, assumptions have to be relaxed. The consequences of relaxing assumptions or finding alternate ways of framing a problem are central to financial research and discussed extensively in the classroom.

1.2.5. Level of communication skills

Business education places much emphasis on the development of communication skills, in large part because their importance is emphasized by employers. The Master of Finance program, though designed for students with an aptitude for quantitative material, will provide many opportunities for students to develop and augment both their oral and written communication skills through class discussion, student presentations and written reports of various kinds. Student evaluation and feedback will include assessments of students' oral and written communication ability.

1.2.6. Awareness of limits of knowledge

The program will draw upon the expertise of the faculty working in a number of fields: economics, mathematics, statistics, operations management and accounting, as well as finance. This is essential for ensuring that students have both the breadth of perspective and analytical skills for careers in finance. One consequence of drawing on faculty skills and knowledge across multiple disciplines is that students will be expected to work within alternative paradigms, each with its own complexities and perspectives. Students will find areas of congruence and areas of difference, and one of their challenges will be to reconcile and understand the limits of knowledge and differences in perspective of finance versus cognate disciplines.

1.3. Appropriateness of degree nomenclature

Master of Finance (M.Fin.) is the most appropriate choice for the degree name. As it explicitly focuses on the word "finance," it conveys clearly to potential employers the specific training that the graduates of the program receive. In contrast to the M.B.A. degree (which implies a broad business education), the M.Fin. is a graduate degree for students who wish to undertake rigorous academic training to become finance specialists.

This program is intended to prepare students for careers as finance specialists in both financial and non-financial organizations. As explained earlier, the program is not intended to be a mathematical finance program like those available in various mathematics departments. Nor is it intended to be a purely financial economics program, like those offered by economics departments. The Finance and Business Economics Area proposes to offer a program for finance specialists that is academically more rigorous, with a focus on the application of quantitative skills, than an M.B.A. program with a finance specialization.

2. ADMISSION REQUIREMENTS

2.1. Appropriateness of program's admission requirements for the learning outcomes established for completion of the program

In order to attract a deep pool of high quality applicants, we propose that prior work experience not be required as a condition for admission. We also propose to consider applicants with recognized

bachelor degrees from various academic disciplines. While the admission criteria would be focused primarily on the applicants' analytical and mathematical skills, as evidenced by academic records, the lack of extensive prior academic training in finance, economics, and/or statistics would not exclude potential students inasmuch as we are able to incorporate preparation in these subjects into the program.

The information content of academic transcripts is not a sufficient basis for admission. Hence, it is important to augment students' academic records by considering other measures, such as GRE or GMAT scores, in order to identify admissible students. (At a minimum, applicants would, of course, have to meet the admission standards set by the School of Graduate Studies). In order to obtain some uniformity in the admission standards for applicants from different undergraduate programs, domestic as well as foreign, we propose that applicants submit either general GRE scores or GMAT scores for admission consideration. Although this requirement could have a negative effect on the size of the applicant pool, we believe it provides a positive signal to applicants about program quality.

In this connection we note that Brock, HEC Montreal, and Windsor do not require GRE/GMAT scores, while Toronto, UBC, Queen's, Simon Fraser, and Concordia do. HEC is, of course, primarily a French language program. It appears that having the GRE/GMAT requirement would be in line with the practice of the schools with which we would like to be compared. Apart from its role as an arbiter of applicant quality, we believe that the GRE/GMAT requirement would communicate to potential applicants that the quality of the program is high.

The expectation is that students entering the program would have stronger qualifications than entering M.B.A. students, especially in mathematics and related courses and in the quantitative component of the GRE/GMAT.

Further, for students for whom English is not the first language, satisfactory TOEFL (or equivalent) scores would be required as well. TOEFL scores must be at least equal to the minimum requirement set by the University, and would be expected to be higher. Finally, because of the quantitative nature of the program, students would be required to have at least one term of calculus, one term of algebra and one term of statistics as a condition of admission (taken within five years preceding entry to the program).

2.1.1. Admission requirements (summary)

- Recognized bachelor degree in any discipline with a minimum B+ average grade.
- Analytical and mathematical skills (evidenced by a minimum of one term each of calculus, algebra and statistics) with satisfactory grades.
- Official results of the GMAT or GRE test.
- Three letters of reference, preferably from former university professors.
- No prior work experience required.
- For international applicants, an official statement of English language test results.

2.2. Alternative requirements for admission into the program

None.

3. STRUCTURE

3.1. Appropriateness of the administrative, governance and communication processes proposed in support of the program

We propose a twelve-month format. Specifically, the program would start in September and end in August of the following year, thus comprising three four-month study terms. In this program structure, a total of fifteen half courses (or project equivalent to one course) would be required. This format and length is appropriate for providing students with their analytical tool kit, focusing on the core themes of modern finance and providing them with an opportunity to investigate specialized topics. In addition, immediately prior to the beginning of the first term, students would be required to complete a three-day review workshop covering basic topics in differential and integral calculus, linear algebra, and statistics and probability.

The finance component of the program will be offered primarily in the Winter and Summer terms. In the Fall, students would take courses in accounting, economics, finance, and statistics, if they have not previously done so. A full course load for a student with no prior preparation would comprise the following five half courses: finance (MFIN 601), microeconomics (MFIN 602), macroeconomics (MFIN 603), statistics (MFIN 604), and financial accounting (BUS A600). Depending on a student's undergraduate preparation, some of these half courses may be exempted and replaced with other courses. For students with prior finance training, 700-level finance courses could be taken. Students with no prior finance training, but courses in the other subject areas, would be allowed to choose electives in business or cognate fields, depending on their background.

3.1.1. Program structure

The following program structure is proposed. All courses identified with the MFIN code will be new courses. Courses identified with the BUS code are currently offered (within the M.B.A. program)

Term 1

MFIN 601: Introduction to Finance
MFIN 602: Microeconomics
MFIN 603: Macroeconomics
MFIN 604: Statistics
BUS A600: Financial Accounting and Reporting

Term 2

MFIN 701: Introduction to Econometrics
BUS F710: Financial Theory
MFIN 703: Derivatives
MFIN 704: Numerical Methods
One elective

Term 3

MFIN 705: Financial Econometrics
MFIN 706: Computational Finance
Three electives

3.1.2. Governance structure

The program will be overseen by an Academic Committee, comprising four members of the Finance and Business Economics Area including the Program Director, one member of the Accounting and Financial Management Services Area, one member of the Operations Management Area, and one member of the Department of Mathematics and Statistics. The

Academic Committee's role will be to provide academic direction and guidance to the Program Director, who will be responsible for ensuring that the program's admission criteria are properly implemented and that all academic regulations governing the program and its students are properly applied. The Program Director, who will report to the Associate Dean, Graduate Studies and Research, will also work with the appropriate offices and individuals, primarily within the Faculty of Business, on the various activities involved in delivering the program, including student recruitment, financial assistance and academic advising, curriculum planning and implementation, instructional support, and student career preparation. The Director will be appointed, by the Dean of Business, for a three year term, which will be renewable. The Dean of Business will seek recommendations from the Area Chairs (Academic Leads) in Business, and the Chair of Mathematics and Statistics on the membership of the Academic Committee. The proposed governance structure and initial composition of members is outlined below:

i. Program Director (Acting)

Dr. Trevor Chamberlain (Chair, Finance & Business Economics)

ii. Academic Committee

- Finance & Business Economics (DeGroote School of Business)
    1. Dr. Trevor Chamberlain
    2. Dr. Clarence C. Y. Kwan
    3. Dr. Jiaping Qui
    4. Dr. Sudipto Sarkar
- Accounting & Financial Management Services (DeGroote School of Business)

  Dr. Khalid Nainar
- Operations Management (DeGroote School of Business)

  Dr. Elkhafi Hassini
- Financial Mathematics (Department of Mathematics and Statistics)

  Dr. Thomas R Hurd

iii. Administration

A dedicated administrator, reporting to the Program Director, will be hired in order to provide administrative support for the program. The cost of the administrator's position will be covered by the program revenues.

3.1.3. Communication

The Program Director, working with the Program Administrator, will be responsible for ensuring that all communications related to the program are directed to the appropriate individuals and University bodies. As stated above, the Program Director will report to the Associate Dean, Graduate Studies and Research in the Faculty of Business.

3.2. Appropriateness of program's structure and regulations to meet specified program learning outcomes and Degree Level Expectations

The program is structured so that students will proceed sequentially from Term 1 to Term 2 to Term 3 with access to courses in successive terms relying on successful completion of those taken in the previous term. Students who do not succeed in any of the Term 1 courses will not be prepared and, thus, ineligible to take the required courses in Term 2. Likewise, students unsuccessful in Term 2 required courses will be unprepared and, thus, unable to take Term 3's required courses. Term 2 and 3 electives, in contrast, may be taken by students who successfully complete all of the courses in Term 1. Successful course completion requires a grade of B- or above. Students will require an overall average of B in order to graduate from the program.

In the event of a failing course grade, students will be allowed to repeat or, in the case of elective courses, substitute, one course. However, inasmuch as courses will only be offered once a year, a student failing a required course would have to join the next year's cohort in order to complete the required courses.

The program is intended to prepare students for careers in which significant ability and judgement is required. Specific expectations – that is, learning outcomes – were articulated earlier in Section 1.1.

It is important that students graduating from the program meet the expectation of the program as well as the University's Degree Level Expectations for a master's degree, Moreover, the expectations of employers of master's level financial specialists have to be met and, preferably, exceeded in order to establish the program as a source of well-trained, highly-qualified graduates.

3.3. Rationale for program length

The program comprises three consecutive terms. The first term provides students with fundamental knowledge and skills in economics, accounting, statistics and finance. The second term is devoted to deepening students understanding of analytical skills as well as their knowledge of the theoretical framework and problems of modern finance. The final term comprises a combination of analytical applications of the concepts learned in earlier terms and opportunities for students to focus on topics of particular interest.

4. PROGRAM CONTENT

4.1. How curriculum addresses the current state of the discipline or area of study

The proposed program is a specialized program that provides in-depth learning in the principles and practices of modern finance. The curriculum is designed to provide students with analytical tools and techniques required for an array of careers in the financial industry. As outlined above, it will be a collaborative initiative involving faculty from not only the Finance and Business Economics Area within the Faculty of Business, but also members of the Accounting and Financial Management Services and Operations Management Areas, as well as members of the Department of Mathematics and Statistics in the Faculty of Science. The specific courses to be offered are as follows (course descriptions are provided in Appendix 11.1).

4.1.1. Course listing

As noted above, all courses identified with MFIN codes are new courses. Courses identified as BUS courses are presently offered (within the M.B.A. program).

Course Code	Course Title
Required	
MFIN 601	Introduction to Finance
MFIN 602	Microeconomics
MFIN 603	Macroeconomics
MFIN 604	Statistics
BUS A600	Financial Accounting & Reporting
MFIN 701	Introduction to Econometrics
BUS F710	Financial Theory
MFIN 703	Derivatives
MFIN 704	Numerical Methods
MFIN 705	Financial Econometrics
MFIN 706	Computational Finance
Electives	**(Four Required)**
BUS F711	Financial Institutions
BUS F712	Applied Corporate Finance
BUS F713	Security Analysis
BUS F715	Portfolio Theory and Management
BUS F716	International Financial Management
BUS F717	Financial Statement Analysis
BUS F719	Independent Research Project
BUS F721	Mergers, Acquisitions and Corporate Control
BUS F722	Market Trading and Risk
BUS F723	Fixed Income Analysis
BUS F726	Behavioural Finance
BUS F727	Working Capital Management
BUS F733	Financial Risk Management
BUS F735	Financial Modeling
BUS F736	Ethics and Professional Practice in Finance
BUS F737	Financial Fraud and Surveillance

Other electives from Finance, Accounting, Operations Management, Economics or Mathematics and Statistics may be chosen with the approval of the Program Director, and, in the case of Economics or Mathematics and Statistics courses, the consent of the department involved.

4.2. Unique curriculum or program innovations or creative components

Drawing, as it does, on the academic resources of several disciplinary units distinguishes the M.Fin. program from other specialized master's level finance programs in Ontario. In doing so, the program uniquely prepares students for professional opportunities in which a combination of technical skills and institutional knowledge are important.

4.3. Nature and suitability of major research requirements

The Master of Finance is a course-based program inasmuch as most graduates are expected to pursue careers in the financial industry. Students will have the option of taking Business F719: Independent Research Project, in lieu of one course, under the supervision of a faculty member and with the approval of the Program Director and the Associate Dean, Graduate Studies and Research. Students who plan to go on to a Ph.D. in finance or a cognate subject will be encouraged to choose the F719 option in order to undertake or participate in a project involving original research.

4.4. Appropriateness of the courses for the graduate degrees

The program does not require applicants to have an undergraduate degree in finance. In this respect it resembles the M.B.A. program. However, the analytical rigour of the program will be significantly greater than that of the M.B.A. program, thus placing it between the Finance specialization in the M.B.A. program and the Finance field of the Ph.D. program in Business Administration.

The program's courses will utilize textual materials appropriate for graduate level study and students will be expected to read and critically evaluate original papers from the finance literature. They will be expected to develop a sound knowledge of the main themes in the literature and their applicability to financial practice. As explained earlier, students will also be expected to understand the limitations of contemporary thought in finance and the relationships between finance and the cognate fields to which they will be exposed – in particular, economics and accounting. In addition, students will be expected to apply the concepts and tools learned in economics, accounting, mathematics and statistics to a variety of problems in finance.

5. MODE OF DELIVERY

5.1. Appropriateness of proposed mode of delivery to meet the program learning outcomes and Degree Expectations and availability of necessary physical resources

The program courses will be offered through a combination of lectures, tutorials and case discussions, with students having the option of completing a project under the supervision of a member of the teaching faculty in lieu of one course.

The program will be delivered in a live classroom setting. Classroom interaction between faculty and students and among students is an important ingredient in achieving the learning outcomes of the program and ensuring that students meet the University's Degree Level Expectations. This interaction will take the form of lectures, class discussions, problem solving, case analyses and student presentations. In-class interaction will be supplemented with the tools available through Avenue to Learn. One-on-one faculty-student meetings will also be an important ingredient of the learning process.

5.1.1. Physical space

Students will not be given dedicated work spaces as the program is course-based rather than thesis-based. The program administrator will require an office in the DeGroote School of Business (Westdale). As explained below, in Section 7.1, courses will utilize existing classroom

facilities. There is undedicated study space available to students in both the DeGroote School of Business (Westdale) and the Ron Joyce Centre.

6. ASSESSMENT OF TEACHING AND LEARNING

6.1. Appropriateness of proposed methods of instruction and assessment of student achievement

As explained earlier, the courses are aligned in such a way that the program's learning outcomes will be met as students successfully complete the set of courses required in each term. This requires regular interaction between instructors and students. The program enrollment is anticipated to be twenty to thirty students per cohort. Class sizes of twenty to thirty provide the critical mass needed for enriched class discussions, but are not so large as to discourage or preclude individual participation.

As noted above, instructional methods will include lectures, class discussions, problem solving, case analyses and student presentations, keeping in mind that instructional methods will vary, both in type and proportion, from course to course.

To ensure that student achievement is congruent with the program's learning goals, a variety of evaluation methods will be used inasmuch as students are expected to develop skills and acquire knowledge along a number of dimensions. Specific methods include problem sets, individual student papers and group projects, case assignments, class presentations and course examinations.

6.2. Plans for documenting and demonstrating the level of performance of students

Student performance will be demonstrated through their level of achievement on the assessment methods used. A letter grade will be awarded for each course based on student performance. Course grades will be forwarded to the Program Director by teaching faculty and, thence, to the Associate Dean, Graduate Studies and Research, for approval. Grades will only become final upon approval by the Graduate Admissions and Study Committee of the Faculty of Business.

7. RESOURCES FOR ALL PROGRAMS

7.1. Administrative unit's planned utilization of existing human, physical and financial resources and any institutional commitment to supplement the resources

The M.Fin. program will draw upon the combined strengths of several academic units at McMaster, including the Finance and Business Economics, Accounting and Financial Management Services, and Operations Management Areas in the Faculty of Business and the Department of Mathematics and Statistics in the Faculty of Science. The program is proposed as a cost recovery program and, as such, all program costs will be covered by the program's revenues. Enrollment, revenue and cost projections are included as Appendix 11.2.

The program will use existing classroom facilities at both McMaster's Westdale campus and Ron Joyce Centre. Classroom seating for twenty to thirty at the Westdale campus will be required, as follows:

Term 1 (Fall): 4 Sections
Term 2 (Winter): 3 Sections
Term 3 (Summer): 2 Sections

Classroom seating for similar numbers will be required at Ron Joyce Centre:

Term 1 (Fall): 1 Section
Term 2 (Winter): 1 Section
Term 3 (Summer): 2 Sections

Elective courses (one in Term 2 and three in Term 3) will be those presently offered in the M.B.A. program or, with the approval of the Program Director and the consent of the department involved, electives in Mathematics, Statistics or Economics. M.B.A. electives, except BUS F722, are offered at the Ron Joyce Centre in Burlington, as are the required courses, BUS A600 (Term 1) and BUS F710 (Term 2). A classroom will be required for an additional section of BUS A600, but not for BUS F710. BUS F722 is offered in the Trading Centre at the Westdale campus.

7.2. Participation of a sufficient number and quality of faculty who are competent to teach and/or supervise in the program

The Finance and Business Economics Area comprises thirteen members, with one, and, possibly, two new senior (academic chair) appointees starting July 01, 2012. Of the thirteen current members, one member is presently seconded to University's central administration. Thus, at the present time, twelve members are active in teaching and research, and nine are currently supervising Ph.D. students. The complete list of full-time faculty available to teach in the M.Fin. program is as follows:

No	Name	Rank	Area	Department
1	Dr. Trevor Chamberlain	Professor and Chair	Finance & Business Economics	DeGroote School of Business
2	Dr. Narat Charupat	Associate Professor	Finance & Business Economics	DeGroote School of Business
3	Dr. Sherman Cheung	Professor	Finance & Business Economics	DeGroote School of Business
4	Dr. Anna Danielova	Assistant Professor	Finance & Business Economics	DeGroote School of Business
5	Dr. Richard Deaves	Professor	Finance & Business Economics	DeGroote School of Business
6	Dr. Clarence C. Y. Kwan	Professor	Finance & Business Economics	DeGroote School of Business
7	Dr. Rosemary Luo	Associate Professor	Finance & Business Economics	DeGroote School of Business
8	Dr. Peter Miu	Associate Professor	Finance & Business Economics	DeGroote School of Business
9	Dr. Dean Mountain	Professor	Finance & Business Economics	DeGroote School of Business
10	Dr. Jiaping Qiu	Associate Professor	Finance & Business Economics	DeGroote School of Business
11	Dr. Sudipto Sarkar	Professor	Finance & Business Economics	DeGroote School of Business
12	Dr. John Siam	Assistant Professor	Finance & Business Economics	DeGroote School of Business
13	Dr. Khalid Nainar	Professor	Accounting & Financial Mgt Ser.	DeGroote School of Business
14	Dr. Matheus Grasselli	Associate Professor	Financial Mathematics	Mathematics & Statistics
15	Dr. Thomas R. Hurd	Professor	Financial Mathematics	Mathematics & Statistics
16	Dr. Elkafi Hassini	Associate Professor	Operations Management	DeGroote School of Business
17	Dr. Mahmut Parlar	Professor	Operations Management	DeGroote School of Business

In addition, part-time faculty may be used from time-to-time, albeit only in elective courses.

7.3. Evidence of adequate resources to sustain the quality of scholarship produced

The proposed program is a course-based program, though students may choose to do an independent research project in lieu of one course. The Director will work with students

interested in undertaking the project option to identify an appropriate supervisor. If, for example, one-half of the students choose the project option, faculty supervisors, who are likely to be mainly members of the Finance and Business Economics Area, will, on average, supervise one student per year.

7.3.1. Tuition fees

We propose that the tuition fees be structured such that the total tuition fee paid for the program be competitive with similar programs offered by the University of Toronto and York University, which, in terms of faculty calibre and university mission, are considered to be our closest comparators in Southern Ontario. Thus, the per-term fee proposed is $12,000 per term for three terms. The program would be offered on a cost recovery basis and the tuition fee would be same for both domestic and visa students. This would also allow students to obtain a Master in Finance degree at a cost similar to that of McMaster's M.B.A. program (albeit over a shorter period) and, at the same time, allow the program to be mounted in a slightly smaller cohort (20-30 students) than is the case for the M.B.A. program.

7.3.2. Projected intake and enrollment

Three possible enrollment scenarios are contemplated and projected enrollments for each of these scenarios are shown below. Detailed enrollment and budgetary projections are provided in Appendix 11.2. Steady state enrollment is assumed to be achieved in 2016.

Year	2013	2014	2015	2016	2017	2018	2019
Scenario 1	10	10	15	20	20	20	20
Scenario 2	15	15	20	25	25	25	25
Scenario 3	20	20	25	30	30	30	30

As noted above, detailed budget information is attached as Appendix 11.2 These estimates suggest that beyond the first year the program would be profitable under a cost recovery model for all enrollment scenarios.

8. RESOURCES FOR GRADUATE PROGRAMS

8.1. Plan for adequate numbers of faculty and staff to achieve program's goals

As explained elsewhere, the program has been designed in order to utilize effectively academic strengths and interests of members of Finance and Business Economics Area, complemented by the knowledge and skills of members of the Accounting and Financial Management Services and Operations Management Areas, and the Department of Mathematics and Statistics.

The listed faculty complement is sufficient to cover all of the required courses in the M.Fin. program. Indeed, all of the required courses can be taught by more than one full-time faculty member. This is important in order to accommodate faculty research leaves or, if they should occur, secondments to administrative positions. As for the finance electives, F712, F713, F715, F716, F721, F722, F726, F727, F733 and F737 are taught by full-time faculty. F717 is presently

taught by a long-term adjunct professor, while F711, F735 and F736 are presently taught by long-term sessional instructors.

One staff member will be hired in order to administer all aspects of the program other than student recruiting and job placement, but including administrative support for the Program Director.

Student recruitment will be undertaken as part of the overall Faculty of Business recruitment effort, for which the program will be charged an appropriate fee. Job placement support will be expedited by the Faculty's Center for Career Development (CBCD), for which students will have to pay a fee. This fee will require student approval by referendum as well as the approval of the University Finance Committee.

8.2. Plan to provide the necessary financial assistance for students

Students will be provided with at least one master's level TAship (96 hours in the Faculty of Business), over the duration of the program. Scholarship funding will also be sought to support students. However, because the program is a cost recovery program, students will not be eligible for OSAP or bursary funding.

8.3. Evidence that faculty research supervisors have ongoing funding, space and relevant research infrastructure to support students in program

Because the program is course-based, faculty supervision will be limited to that required for students choosing the BUS F719: Independent Research Project option. The main research tools in finance are databases and software tools to access them. The Faculty of Business, in conjunction with the University Library, supports the Wharton Research Data Services (WRDS) platform, which can be used to access a large number of databases, including the two most widely used in finance: CRSP and Compustat. Other databases used in finance to which the University subscribes, include Eventus, IBES, Mergent FISD, Risk Metrics, TRACE, and Thomson Reuters. See Appendix 11.4 for more information.

8.4. Supervisory and load distribution and qualification

Finance and Business Economics Area (F&BE) members are likely to supervise most BUS F719 projects inasmuch as students are expected to choose projects in finance. As noted above, the average load is expected to be approximately one project per faculty member per year, although, depending on both student and faculty interests, some faculty may supervise more than one project in some years and some may supervise none. All listed F&BE teaching faculty have Ph.D.'s in Finance, Economics, or Finance and Economics, are active in research and qualified to supervise BUS F719 students. Past and present supervision activity is presented in Appendix 11.3.

8.5. Evidence of prior experience in graduate teaching and research supervision for faculty

All teaching faculty have experience with graduate teaching and most have experience with Ph.D. supervision. Among the twelve members of the Finance and Business Economics Area listed, nine are presently supervising Ph.D. students.

9. QUALITY AND OTHER INDICATORS

9.1. Definition and use of indicators that provide evidence of quality of the faculty

All members of the Finance and Business Economics Area currently active in teaching and research are included as members of the program's teaching faculty. Other teaching faculty were identified and chosen on the basis of whether they were qualified to teach at least one course in the program. All listed teaching faculty have Ph.D.'s and are full-time members of McMaster University. Of the seventeen faculty included, two hold the rank of assistant, six the rank of associate and nine the rank of professor, and all have prior experience teaching at the graduate level. Their teaching activity for the three years ending Winter, 2012 is presented in Appendix 11.3. Of the three part-time faculty teaching permitted M.B.A. electives, all have M.B.A. degrees, and two have professional designations appropriate to their teaching (CFA/CPA/CMA and CA) as well.

9.2. Evidence of a program structure and faculty research that will ensure the intellectual quality of the student experience

The program is structured in order to provide students, in Term 1, with fundamental tools from economics, statistics, financial accounting and finance, all of which are necessary for a career as a finance specialist. The financial industry, in particular, places great emphasis on the importance of quantitative skills as it seeks to strengthen its risk management practices.

Term 2 continues the development of students' skills and knowledge begun in the first term, and utilizes these skills to examine topics in financial theory and derivatives. Students will also have an opportunity to choose an elective in an area in which they have a particular interest, in the second term.

The third term builds on the knowledge acquired in the Term 2 skills courses with analytical applications in finance and, also, specialization through the choice of three electives. The elective courses will offer students the opportunity to augment their analytical skills and knowledge of core topics in finance with specific knowledge in areas such as corporate finance, capital markets and investments.

As noted earlier, the program is designed to align faculty research interests and activities with student learning. All of the required courses and most of the electives will be taught by active researchers, whose scholarly activity is related to the course being offered. The Finance and Business Economics Area also encourages one-on-one interactions between faculty members and students, as we believe that these are an important contributor to a student's intellectual development.

In addition, students will be encouraged to attend and participate in the Finance and Business Economics Area's seminar series. These seminars, which are scheduled once or twice a month throughout the year, are a forum for presenting and discussing current research. Speakers are most often visiting faculty, but also include McMaster faculty and Ph.D. students.

10. CONSULTATION PROCESS

10.1. Description of the consultation process undertaken during the development of the proposal

In Spring 2008, Area representatives met with Dr. Bradd Hart and Dr. Matheus Grasselli of the Department of Mathematics and Statistics (Math). The Department indicated its support for the program and a willingness to teach **Computational Finance**, **Numerical Methods**, and **Statistics**.

Area representatives met, as well, with Dr. John Miltenburg, Acting Chair of the Operations Management Area, to discuss his Area's participation in the program. He indicated that his Area had the expertise to teach two of the courses – **Statistics** and **Numerical Methods** – although, at that time, there was some uncertainty regarding the availability of faculty to teach additional courses. The Area's participation was subsequently confirmed by Dr. Prakash Abad, who succeeded Dr. Miltenburg as the Acting Chair of Operations Management.

During the summer of 2009, additional meetings were conducted to explore further anticipated demand for the proposed Master of Finance program and a student recruitment strategy. Meeting outcomes are briefly summarized below:

- Mr. Erich Almasy (Director, Executive Education) anticipated strong demand for the proposed program especially from immigrant communities in Canada and from international students, particularly from Asia.
- Dr. John Siam (Assistant Professor and Director of the Gould Trading Floor) felt that, in spite of the recent crisis in the financial sector, there would be sufficient demand from the industrial sector. However, he indicated that graduating students should be marketed in a timely way to targeted industries.
- Ms. Denise Anderson (Recruiting Administrator) thought that GMAT or GRE requirements would limit the applicant pool; however, a shorter program duration relative to the M.B.A. program would attract more students. She also expected that the proposed program would be attractive to many international applicants.
- Mr. John Scime (Graduate Registrar and Secretary) and Ms Kathryn Denny (Director of Administration) provided useful information regarding BIU funding from the Ministry of Training, Colleges, and Universities (MTCU). In fact, Mr. Scime strongly recommended applying for BIU funding as soon as possible since the MTCU was currently encouraging new programs.

More recently, in Fall 2010 and Winter 2011, an Area representative met with Dr. Karen Menard, Assistant Vice President (Institutional Research and Analysis) and Dr. Allison Sekular, Associate Vice President and Dean of Graduate Studies. They advised that the University had exhausted its BIU funding quota for master's degree programs, and that any new programs would have to be mounted on a cost recovery basis. As a result, in the budget analysis appended to this proposal, only the cost recovery option is considered.

In addition, during this period an Area representative met twice with Associate Dean John Medcof and Ms Jennifer McCleary, Director of the Center for Business Career Development (CBCD). Ms McCleary advised that a proposed summer internship for the Program (with the third academic term in the Fall) would be problematic given the current demands on CBCD to find co-op placements for M.B.A. students. However, she indicated a willingness to include (for a fee) M.Fin. students in CBCD's career preparation activities. The proposed internship was subsequently dropped.

In January 2012, Deans Bob McNutt and John Medcof and an Area representative met with Deans John Capone (Science) and Charlotte Yates (Social Sciences), and the Chairs of Economics and of Mathematics and Statistics, Dr. Jerry Hurley and Dr. Bradd Hart, to discuss a variety of issues relating to the utilization of faculty resources to mount the program. As well, Dean Medcof, Ms Pat Fraser and an Area representative met with Dean Don Goellnicht (Graduate Studies) and Ms Stephanie Baschiera (Graduate Studies) to review the requirements and process of program approval. Deans McNutt and Medcof, Ms. Fraser and an Area representative subsequently met with Dean Allison Sekular (Graduate Studies) and Ms. Baschiera to review the program proposal and ensure that it complied with the University's requirements for new programs.

Finally, throughout this process, Finance and Business Economics Area representatives have had numerous meetings with successive Faculty of Business deans and associate deans to discuss program funding and the preparation of the formal proposal for approval consideration.

11. APPENDICES

11.1. Course descriptions

11.2. Costing/budget sheets

11.2.1. Cost Recovery - Scenario 1
11.2.2. Cost Recovery - Scenario 2
11.2.3. Cost Recovery - Scenario 3
11.2.4. Assumptions and notes

11.3. Faculty teaching and supervision

11.4. Library and database resources

11.5. Faculty CVs

Appendix 11.1: Course descriptions

All new courses use the MFIN course code. Existing courses offered within the M.B.A. program are denoted by the code BUS.

Term 1

MFIN 601 (Introduction to Finance): This course, being an introduction to modern business finance, examines fundamental financial concepts in order to prepare students for the specialized courses that the M.Fin. program offers. It also introduces students to various analytical and quantitative skills required for such courses. The components of this course include time value of money, capital budgeting, valuation, decision making under uncertainty, capital structure, dividend policy, introduction to derivatives, mean-variance analysis and asset pricing, and an introduction to international finance.

MFIN 602 (Microeconomics): This course is an introduction to microeconomics theory, as well as techniques for decision-making by individual firms. Other topics in applied and theoretical microeconomics are covered as well. Specific topics include production and cost, revenue, markets and welfare, firm objectives and behaviour, and general equilibrium.

MFIN 603 (Macroeconomics): This course is an introduction to macroeconomic theory, as well as its applications. Topics covered in this course include economic growth, monetary and fiscal policies, business investment, and expectations theory.

MFIN 604 (Statistics): This course is a second level statistics course with an emphasis on applications in a business setting. It enables students to acquire statistical knowledge and skills for empirical analysis. The main topics include frequency distributions, probability, hypothesis testing, linear regression, sampling, and an introduction to time series analysis.

BUS A600 (Financial Accounting and Reporting): The objective of this course is to introduce students to contemporary accounting and reporting analysis, which is an integral component in modern corporate fundamental analysis. This course examines the theory and practice of accounting and financial reporting from a corporate financial management perspective. Topics include the accounting cycle, financial statements and accounting for assets, liabilities, equities, revenues, and expenses.*

*This course is presently offered in the M.B.A. program.

Term 2

MFIN 701 (Introduction to Econometrics): This course introduces students to the theory and applications of statistical techniques for testing economic theory. It covers the basic tools of estimation and inference in the framework of the linear regression model and addresses the problems that arise when the assumptions of the model are violated. The course emphasizes an intuitive understanding and practical applications of the basic tools of regression analysis. The main topics include the specification of an econometric model, estimation procedures, testing of the assumptions of the econometric model, and the generalized linear regression model.

BUS F710 (Financial Theory): This course provides a theoretical foundation for the analysis of individual portfolio choice and the financing and investment decisions of the firm. The main topics include utility theory, state-preference, stochastic dominance, mean-variance, asset

pricing, topics in investment and corporate finance, continuous-time, alternative risk measures, signaling theory, and agency problems*.

*This course is presently offered in the M.B.A. program.

MFIN 703 (Derivatives): This course provides an advanced analysis of the pricing of derivatives and the numerical methods that are used to implement derivatives pricing models. Formal derivations and theoretical models are covered in this course. Topics include stochastic calculus, the Black-Scholes model and its variations, exotic options, and interest rate derivatives.

MFIN 704 (Numerical Methods): This course covers various numerical techniques to solve quantitative problems. Its primary objective is to develop a basic understanding of the construction of numerical algorithms and the applicability and limits of their use. An important component of this course is the learning of widely-used computer programs such as MatLab and Maple. The main topics include standard algorithms for numerical computations, such as root finding for nonlinear equations, numerical differentiation, and numerical solutions of ordinary differential equations.

Term 3

MFIN 705 (Financial Econometrics): This course covers econometric techniques that are required for empirical finance with an emphasis on time series analysis. Topics include panel data analysis and simultaneous equations. The course emphasizes hands-on experience through learning computer-based applications in estimation and inference. Students are expected to acquire programming techniques working with econometric and statistical software packages in this course.

MFIN 706 (Computational Finance): The objective of the course is to examine the construction of computational algorithms in solving financial problems, such as the time evolution of asset prices, hedging and the pricing of options. Considerable attention is devoted to the application of computational and programming techniques to finance problems. Materials in this course are numerical and computational in nature, rather than mathematical and analytical. Topics include Monte Carlo methods, jump diffusion, discrete hedging and mean variance portfolio optimization, continuous-time financial modeling, lattice methods, binomial trees, and numerical solutions of ordinary and partial differential equations.

Electives will comprise the following M.B.A. courses:

BUS F711 Financial Institutions
BUS F712 Applied Corporate Finance
BUS F713 Security Analysis
BUS F715 Portfolio Theory and Management
BUS F716 International Financial Management
BUS F717 Financial Statement Analysis
BUS F719 Independent Research Project
BUS F721 Mergers, Acquisitions and Corporate Control
BUS F722 Market Trading and Risk
BUS F723 Fixed Income Analysis

BUS F726 Behavioural Finance
BUS F727 Working Capital Management
BUS F733 Financial Risk Management
BUS F735 Financial Modelling
BUS F736 Ethics and Professional Practice in Finance
BUS F737 Financial Fraud and Surveillance

Note 1: Absent from the above elective list is BUS E714, Business and Economic Forecasting. Since this course overlaps with (MFIN F701), it is excluded. Also excluded are practitioners' courses, such as BUS F720: Small Business/Entrepreneurial Finance; BUS F724: Venture Capital; and BUS F725: Personal Financial Management. These courses are institutional in content and not suitable for an analytical program such as the M.Fin.

Note 2 (Course Delivery): All the courses will be delivered by the Finance and Business Economics Area (with instructors provided by the Department of Mathematics and Statistics for **Computational Finance** and, possibly, **Statistics**), with the exception of **Numerical Methods** and, possibly, **Statistics** (delivered by Operations Management) and **Financial Accounting and Reporting** (delivered by Accounting and Financial Management Services). The course syllabi will be developed by the Finance and Business Economics Area in consultation with participating areas and departments. Further, as noted above, it is assumed that all incoming students will have taken at least one term of calculus, one term of algebra, and one term of statistics.

Note 3: Students who wish to undertake an Independent Research Project (BUS F719) are responsible for finding a supervisor prior to registering for the course. The Program Director will assist students in identifying an appropriate supervisor.

Appendix - 11.2.1.1

Master of Finance - Budget/Costing Sheet (Cost Recovery) - Scenario 1

Projected Intake and Enrolments

Steady State Annual Admissions	27
Year in which this will be achieved	2016
Steady State Annual Enrollment	20
Year in which this will be achieved	2016

Will this program draw students who might otherwise have taken an existing graduate program at McMaster? **Yes**

Program		No of Students
MBA Finance[1]		6

Please indicate the number of incoming and in-program students expected over next 7 years

	2013	2014	2015	2016	2017	2018	2019
No. of Incoming Students[2]	8	8	12	16	16	16	16

Proposed Operating Budget for Master of Finance Program

Expected Program Income

	2013	2014	2015	2016	2017	2018	2019
Tuition Revenue[3]	120,000	370,800	572,886	786,763	810,366	834,677	859,718
BIU Revenue	0	0	0	0	0	0	0
Other Revenue (Application Fees[4])	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Total	132,000	382,800	584,886	798,763	822,366	846,677	871,718
DSB Share[5]	115,200	340,920	522,797	715,287	736,530	758,410	780,946

Total Expected Program Income for DSB:

115,200	340,920	522,797	715,287	736,530	758,410	780,946

Expected Operating Cost:

Primary Personnel Cost	No of FTEs	2013	2014	2015	2016	2017	2018	2019
Existing Faculty								
Math and Stats Workshop		3,850	3,850	3,850	3,850	3,850	3,850	3,850
Overload Teaching[6]		38,500	92,400	92,400	92,400	92,400	92,400	92,400
Total Personnel Cost		**42,350**	**96,250**	**96,250**	**96,250**	**96,250**	**96,250**	**96,250**

Secondary Personnel Cost	No of FTEs	2013	2014	2015	2016	2017	2018	2019
Program Administrator	1	47,700	50,562	53,596	56,811	60,220	63,833	67,663
Director's Teaching Release		7,700	7,700	7,700	7,700	7,700	7,700	7,700
Total Secondary Personnel Costs		**55,400**	**58,262**	**61,296**	**64,511**	**67,920**	**71,533**	**75,363**

Supplies & expenses (List)	2013	2014	2015	2016	2017	2018	2019
Photocopies & Misc.[7]	1,272	1,348	1,429	1,515	1,606	1,702	1,804

Student Funding:	2013	2014	2015	2016	2017	2018	2019
Teaching Assistantships[8]	26,250	27,563	43,411	60,775	63,814	67,005	70,355
Scholarship Funds from SGS							
Other							

Other Costs	2013	2014	2015	2016	2017	2018	2019
Advertising & Recruitment[9]	11,520	34,092	52,280	71,529	73,653	75,841	78,095

Total Expected Operating Cost	**136,792**	**217,515**	**254,666**	**294,580**	**303,243**	**312,331**	**321,867**

Expected Net Program Income (For DSB)	**-21,592**	**123,405**	**268,132**	**420,707**	**433,287**	**446,078**	**459,079**

Appendix - 11.2.1.2

Master of Finance - Budget/Costing Sheet
(Cost Recovery) - Scenario 2

Projected Intake and Enrolments

Steady State Annual Admissions	33
Year in which this will be achieved	2016
Steady State Annual Enrolment	25
Year in which this will be achieved	2016

Will this program draw students who might otherwise have taken an existing graduate program at McMaster? **Yes**

Program		No of Students
MBA Finance[1]		6

Please indicate the number of incoming and in-program students expected over next 7 years

	2013	2014	2015	2016	2017	2018	2019
No. of Incoming Students[2]	12	12	16	20	20	20	20

Proposed Operating Budget for Master of Finance Program

Expected Program Income

	2013	2014	2015	2016	2017	2018	2019
Tuition Revenue[3]	180,000	556,200	763,848	983,454	1,012,958	1,043,347	1,074,647
BIU Revenue	0	0	0	0	0	0	0
Other Revenue (Application Fees[4])	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Total	192,000	568,200	775,848	995,454	1,024,958	1,055,347	1,086,647
DSB Share[5]	169,200	507,780	694,663	892,309	918,862	946,212	974,382

Total Expected Program Income for DSB:

2013	2014	2015	2016	2017	2018	2019
169,200	**507,780**	**694,663**	**892,309**	**918,862**	**946,212**	**974,382**

Expected Operating Cost:

Primary Personnel Cost	**No of FTEs**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Existing Faculty								
Math and Stats Workshop		3,850	3,850	3,850	3,850	3,850	3,850	3,850
Overload Teaching[6]		38,500	92,400	92,400	92,400	92,400	92,400	92,400
Total Personnel Cost		**42,350**	**96,250**	**96,250**	**96,250**	**96,250**	**96,250**	**96,250**

Secondary Personnel Cost	**No of FTEs**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Program Administrator	1	47,700	50,562	53,596	56,811	60,220	63,833	67,663
Director's Teaching Release		7,700	7,700	7,700	7,700	7,700	7,700	7,700
Total Secondary Personnel Costs		**55,400**	**58,262**	**61,296**	**64,511**	**67,920**	**71,533**	**75,363**

Supplies & expenses (List)	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Photocopies & Misc.[7]	1,272	1,348	1,429	1,515	1,606	1,702	1,804
Total	1,272	1,348	1,429	1,515	1,606	1,702	1,804
Student Funding:	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Teaching Assistantships[8]	39,375	41,344	57,881	75,969	79,768	83,756	87,944
Scholarship Funds from SGS							
Other							

Other Costs	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Advertising & Recruitment[9]	16,920	50,778	69,466	89,231	91,886	94,621	97,438
Total	16,920	50,778	69,466	89,231	91,886	94,621	97,438
Total Expected Operating Cost	**155,317**	**247,982**	**286,323**	**327,476**	**337,430**	**347,863**	**358,800**

Expected Net Program Income (For DSB)	**13,883**	**259,798**	**408,341**	**564,832**	**581,432**	**598,349**	**615,583**

Appendix - 11.2.1.3

Master of Finance - Budget/Costing Sheet (Cost Recovery) - Scenario 3

Projected Intake and Enrolments

Steady State Annual Admissions	40
Year in which this will be achieved	2016
Steady State Annual Enrolment	30
Year in which this will be achieved	2016

Will this program draw students who might otherwise have taken an existing graduate program at McMaster? **Yes**

Program		No of Students
MBA Finance[1]		6

Please indicate the number of incoming and in-program students expected over next 7 years

	2013	2014	2015	2016	2017	2018	2019
No. of Incoming Students[2]	16	16	20	24	24	24	24

Proposed Operating Budget for Master of Finance Program

Expected Program Income

	2013	2014	2015	2016	2017	2018	2019
Tuition Revenue[3]	240,000	741,600	954,810	1,180,145	1,215,550	1,252,016	1,289,576
BIU Revenue	0	0	0	0	0	0	0
Other Revenue (Application Fees[4])	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Total	252,000	753,600	966,810	1,192,145	1,227,550	1,264,016	1,301,576
DSB Share[5]	223,200	674,640	866,529	1,069,331	1,101,195	1,134,014	1,167,819

Total Expected Program Income for DSB:

223,200	674,640	866,529	1,069,331	1,101,195	1,134,014	1,167,819

Expected Operating Cost:

Primary Personnel Cost	No of FTEs	2013	2014	2015	2016	2017	2018	2019
Existing Faculty								
Math and Stats Workshop		3,850	3,850	3,850	3,850	3,850	3,850	3,850
Overload Teaching[6]		38,500	92,400	92,400	92,400	92,400	92,400	92,400
Total Personnel Cost		**42,350**	**96,250**	**96,250**	**96,250**	**96,250**	**96,250**	**96,250**

Secondary Personnel Cost	No of FTEs	2013	2014	2015	2016	2017	2018	2019
Program Administrator	1	47,700	50,562	53,596	56,811	60,220	63,833	67,663
Director's Teaching Release		7,700	7,700	7,700	7,700	7,700	7,700	7,700
Total Secondary Personnel Costs		**55,400**	**58,262**	**61,296**	**64,511**	**67,920**	**71,533**	**75,363**

Supplies & expenses (List)	2013	2014	2015	2016	2017	2018	2019
Photocopies & Misc.[7]	1,272	1,348	1,429	1,515	1,606	1,702	1,804

Student Funding:	2013	2014	2015	2016	2017	2018	2019
Teaching Assistantships[8]	52,500	55,125	72,352	91,163	95,721	100,507	105,533
Scholarship Funds from SGS							
Other							

Other Costs	2013	2014	2015	2016	2017	2018	2019
Advertising & Recruitment[9]	22,320	67,464	86,653	106,933	110,119	113,401	116,782

Total Expected Operating Cost	**173,842**	**278,449**	**317,979**	**360,372**	**371,617**	**383,394**	**395,732**

Expected Net Program Income (For DSB)	**49,358**	**396,191**	**548,550**	**708,958**	**729,578**	**750,620**	**772,087**

Appendix - 11.2.4

Assumptions and Notes

*Scenarios are as follows:

1: Steady state enrollment at 20; 2: Steady state enrollment at 25; 3: Steady state enrollment at 30.

[1]This assumes 20% of potential MBA Finance students choose the Master of Finance.

[2]Under the cost recovery option, the ratio of domestic versus visa students does not affect the revenues as the tuition will be the same.

[3]Assumes a total program tuition fee of $36,000 for both domestic and visa students paid in three equal installments during study terms. The tuition fee is expected to increase @ 3% per annum.

[4]Assumes 80 applications each year on average with an application fee of $150.

[5]DeGroote School of Business (DSB) Share: 90% of both domestic/visa tuition revenue and 60% of other revenue (application fee). (as per John Scime and Kathy Denney).

[6]Assumes $7,700 per section for overload teaching of five courses during 2013 and twelve courses in subsequent years. An additional section will be required for BUS A600, but not for BUS F710. Listed electives are regular MBA courses, which currently can accommodate additional students. It is assumed that two additional MBA electives will have to be mounted in the Summer term to accommodate M.Fin. students.

[7]Assumed at $212 per month with an increase of 6% per annum.

[8]Assumes 96 hours of TA work for each incoming student. Cost is projected to increase @ 5% per annum

[9]Budgeted 10% of revenue (DSB share only) for advertising and recruitment (per Eric Almasy), including prorated cost of a Faculty of Business recruiter.

Appendix - 11.3 – Table A

Teaching - 2009-2012*			
Faculty Name & Rank	**Undergraduate**	**Graduate**	**Area or Department**
Professor			
Chamberlain, T.	3FA3	F773, HH707	Finance & Business Economics
Cheung, S.	4FP3, 4FL3		Finance & Business Economics
Deaves, R.	2FA3, 4FU3	F726/V702	Finance & Business Economics
Hurd, T.	Math 1AA3, Math 4K03	Math 771, Math 773, Math 774, F773	Mathematics and Statistics
Kwan, C.	4FF3, 4FG3	F710, F715, F770	Finance & Business Economics
Mountain, D.	4FG3	F710, F773	Finance & Business Economics
Nainar, K.	4FZ3	F740, A600, A727/F737	Accounting & Financial Management Services
Parlar, M.		Q600, Q781, Q780, O711, Q778, Q771	Operations Management
Sarkar, S.	4FQ3, 4FH3	F721, F727, F774	Finance & Business Economics
Associate Professor			
Charaput, N.	4FE3, 4FL3	F714, F771	Finance & Business Economics
Grasselli, M.	Math 1X03, Math 3QC3	Math 772, Math 773, Math 778, F772, F773	Mathematics and Statistics
Hassini, E.	4QA3	Q773, O734, Q780, O718, Q781	Operations Management
Luo, R.	4FN3, 4FJ3	F733, F723	Finance & Business Economics
Miu, P.	3FC3	F716, F772	Finance & Business Economics
Qiu, J.	3FB3	F713, F774	Finance & Business Economics
Assistant Professor			
Danielova, A.	4FA3, 4FB3	F712, F718	Finance & Business Economics
Siam, J.	4FI3	E600, F722	Finance & Business Economics

*All courses offered by Faculty of Business unless otherwise indicated.

Appendix - 11.3 – Table B

Thesis Supervision (School of Business)							
Faculty Name & Rank	**Master's***		**Doctoral**		**Post-Doctoral Fellows**		**Faculty Area**
Category	**In Progress**	**Completed**	**In Progress**	**Completed**	**In Progress**	**Completed**	
Professor							
Chamberlain, T.	2	3	2				Finance & Business Economics
Cheung, S.							Finance & Business Economics
Deaves, R.			2				Finance & Business Economics
Hurd, T.	1	10		3	1	11	Mathematics and Statistics
Kwan, C.							Finance & Business Economics
Mountain, D.		2	1				Finance & Business Economics
Nainar, K.							Accounting & Financial Management Services
Parlar, M.			1	2			Operations Management
Sarkar, S.		1	2				Finance & Business Economics
Associate Professor							
Charaput, N.			1				Finance & Business Economics
Grasselli, M.		4	2	3	1	3	Mathematics and Statistics
Hassini, E.		6	1	2			Operations Management
Luo, R.			1	1			Finance & Business Economics
Miu, P.			2				Finance & Business Economics
Qiu, J.		1	2				Finance & Business Economics
Assistant Professor							
Danielova, A.			2				Finance & Business Economics
Siam, J.							Finance & Business Economics

*Including F719 projects.

Appendix - 11.4

LIBRARY RESOURCES AND SERVICES TO SUPPORT THE NEW PROGRAM MASTER OF FINANCE

Library

The University Library has evaluated our collection to support the current and potential information needs of students and faculty in the Finance program of the DeGroote School of Business. Our assessment indicates that the resources provided by and available through the Library provide sufficient scholarly support for the research and teaching needs of this new graduate program.

A. LIBRARY RESOURCES

COLLECTION DEVELOPMENT

The acquisition of materials for the School of Business is governed by a Collection Development Policy which is regularly reviewed and updated. The most current version can be found on the Library's web site at: http://library.mcmaster.ca/collections-services/policies/business-administration. A subject specialist librarian based at the Innis Library works with the faculty to acquire and coordinate access to library materials. Library materials are obtained in a variety of ways, including firm orders, standing orders, subscriptions and, in some areas, approval plans.

MONOGRAPHS

McMaster University Library's holdings currently total 2 million volumes and the total annual expenditure on books (excluding Health Sciences) is $700,000.

The collections of books, print journals and reference resources for students in the School of Business are housed in the Innis Library. At the present time the Library purchases more than 360 new books annually to support the School of Business. For the most part, these monographs are in print format but an increasing number are electronic.

In addition to specific materials acquired for the School of Business, information resources acquired for departments in the Social Sciences will prove useful for Business students. McMaster University Library's extensive holdings of reports, surveys, data and other publications of provincial, national and international governments and non-governmental organizations may also provide support for this programme.

JOURNALS & ELECTRONIC RESOURCES

The University Library subscribes to print and electronic journals for the School of Business at an annual cost of approximately $60,000. The subscription list has remained relatively constant for the past four years. Many additional titles are now acquired as part of electronic full-text suites and aggregated journal databases (e.g. Ebsco Business Source Complete), using a library budget for electronic resources, currently set at $4.49 million annually.

The Library has purchased or subscribes to a range of electronic resources, including research databases, full text journals, monographs, numeric data and government publications. In addition, the Library identifies and provides access to select material freely available through the Internet. Such material includes open access journals, dictionaries, encyclopedias, style guides and websites.

McMaster University Libraries participate in national (i.e., CRKN) and regional (i.e., OCUL) consortium licenses for access to full-text electronic resources, and whenever possible, registers for campus-wide electronic access instead of print subscriptions. All full-text journals are accessible through the library's online catalogue and through the e-journals portal at http://library.mcmaster.ca/ejournals. The Library has embedded linking technology (SFX) into research databases which allow users to link directly from the databases to McMaster University's full-text e-journal subscriptions, or to our catalogue. The library also provides access to bibliographic management software (RefWorks). McMaster University students, faculty and staff may access electronic research databases and full-text electronic books and journals from on campus or off-campus via the Library's proxy server.

Currently the McMaster community has access to over 620,000 electronic resources from the Library catalogue, including approximately 72,000 full-text electronic journals and more than 400,000 e-books.

A subject search of all e-resources identified approximately 3,500 e-journals, magazines, and newspapers which relate to Finance/Economics.

DATABASES / INDEXES & ABSTRACTS / REFERENCE TOOLS RELATED TO FINANCE

- Compustat North America & Global via WRDS*
- CRMRC (Canadian Financial Markets Research Centre) TSX
- CRSP (Center for Research in Security Prices) via WRDS*
- DBRS.com
- FISD (Fixed Income Securities Database) via WRDS*
- FPinfomart.ca
- I/B/E/S (Institutional Brokers' Estimate System) via WRDS*
- Industry Norms & Key Business Ratios Database
- ISSM (Institute for the Study of Security Markets) via WRDS*
- Knotia: Accounting and Assurance Database (Includes *CICA Handbook*, *International Financial Reporting Standards* (IFRS), etc.)
- Mergent Online
- RiskMetrics via WRDS*
- TaxWorks
- Value Line Investment Survey

* WRDS = Wharton Research Data Services

Below is a selective list of multi-disciplinary databases with some coverage of finance :

- Business Source Complete (EBSCO)
- CBCA (Canadian Business & Current Affairs)
- CPI.Q
- EconLit
- Factiva
- LexisNexis Academic
- Web of Science

INFORMATION RESOURCES EXPENDITURES

The library budget (fiscal year 11/12) is $7.2 million for the acquisition of library materials in all formats. The annual expenditure figures for the acquisition of library materials for the School of Business for the past five fiscal years are listed in Table 1. In addition, the interdisciplinary acquisitions of other related disciplines benefit students in the Master of Finance program. Overall acquisitions expenditures have increased somewhat in the past five years but far fewer books and individual journals are being purchased due to financial pressures as government funding declines while the cost of specialized business databases, journals, books, and data increases. Although the Canadian dollar has been relatively strong in recent years, exchange rate fluctuations have also impacted purchasing. These factors continue to place noticeable restrictions on collection building activities within the Library system.

In addition to these expenditures specific to the School of Business, the Library currently spends nearly $4.5 million on electronic resources, many of which are multi-disciplinary. The Library's memberships in national and regional consortia have reduced some costs and enabled access to many more resources than the budget funds would normally permit.

B. LIBRARY FACILITIES AND SERVICES

The business and finance collections are housed in the Innis Library, which is the Business library for McMaster University. The Library is open 6 days a week during the term for approximately 75 hours. There are about 200 public seats and seven group study rooms available for collaborative work/study. 26 computer stations are available for student use, all of which have full Internet access, and laptop users have wireless access in almost all public areas of the Library. Printing and photocopying is available and all equipment may be used whenever the Library is open.

Library Catalogue

Monographs and periodicals are catalogued using the Library of Congress system and are shelved by call number. The Library's catalogue provides access to all the collections of the McMaster University Library System [Mills Memorial Library, H.G. Thode Library of Science & Engineering Library, Innis Library (Business) and the Health Sciences Library]. Information about all library materials, hours, services, the online catalogue and access to electronic products

is accessible through the Library's Web site at http://library.mcmaster.ca. Most items circulate, with the exception of print journals, some government publications and reference materials.

Teaching and Learning: Information Literacy

The Information Literacy and Staff Development Librarian coordinates instruction and assigns sessions upon faculty request. Information literacy classes for the School of Business are most frequently taught in campus lecture halls and classrooms by the Business Librarian or the RJC Research Services Librarian. In 2010/11, over 70 information literacy sessions were conducted, making contact with over 3,000 business students.

The Blended Learning project, a collaboration between the Library and the Centre for Leadership in Learning, provides online modules for five large multi-section courses in September 2011. Blended (or hybrid) learning means that students receive instruction in different media, combining face-to-face instruction and online learning. Online tools could be interactive presentations, screencasts, podcasts, self-directed worksheets, or other kinds of modules. The five initial courses account for 262 out of the 594 sessions delivered by University librarians in 2010/11.

Research/Reference/IT Help

Library staff provide research help (reference assistance) in person and virtually (by telephone and e-mail).

IT (Information Technology) assistance is provided by student consultants at the IT Help Desks in Mills Learning Commons.

Interlibrary Loan / Reciprocal Borrowing

For items not available in McMaster's Libraries, students can use RACER (http://library.mcmaster.ca/racer.htm), OCUL's web-based interlibrary loan system, to borrow books, theses or government publications or obtain copies of journal articles from libraries within Canada and elsewhere. McMaster University has recently become a member of CRL (Center for Research Libraries). Our membership allows us to provide "access to extensive and unique collections, opportunities for sharing resources while avoiding unnecessary costs". Materials can be delivered electronically or through interlibrary loan, with a 3 day guarantee. Since the Center has "over four million newspapers, journals, dissertations, archives, government publications and other traditional and digital resources for research and teaching" our membership dramatically increases our access to print scholarly literature, some of which is difficult or impossible to obtain through other means.

Reciprocal agreements with various library consortia allow McMaster faculty, staff, and students to borrow in person from other university libraries in Canada. McMaster faculty may also obtain

borrowing privileges at many major university libraries in the United States (http://www.oclc.org/membership/advisorycommittees/profile8.htm).

Library Outreach

McMaster University students, faculty and staff are encouraged to keep abreast of new services and developments in the Library by reading our electronic News & Events blog (http://library.mcmaster.ca/news) or by subscribing to one of many library RSS feeds.

For detailed information on the University Library's expenditures, collections and services, please consult our Key Library Statistics page at http://library.mcmaster.ca/stats/lib-stats

Table 1
SCHOOL OF BUSINESS
MONOGRAPH / SERIALS EXPENDITURES

FISCAL YEAR	MONOGRAPH EXPENDITURES	SERIALS EXPENDITURES	TOTAL	ELECTRONIC RESOURCES (Library Expenditures)
06/07	$30,240	$56,116	$86,356	$4,189,531
07/08	$33,652	$54,086	$87,738	$3,848,782
08/09	$31,940	$72,854	$104,794	$4,225,372
09/10	$30,397	$74,924	$105,321	$4,162,408
10/11	$21,734	$56,560	$78,294	$4,400,473

Beginning FY 07/08, monograph expenditures include Ebook Short-term loans
Beginning FY 09/10, monograph expenditures include Approval Plan

Appendix - 11.5

Faculty CVs

McMaster University **School of Graduate Studies**

1280 Main Street West
Hamilton, Ontario, Canada
L8S 4L8

Phone 905.525.9140
Ext. 23679
http://graduate.mcmaster.ca

February 17, 2012

To : Graduate Council

From : Medy Espiritu
Assistant Secretary and SynApps System Administrator

Re : Report from the Faculty of Health Sciences Graduate Policy and Curriculum Council

---

At its meeting on December 6, 2011, the Faculty of Health Sciences Graduate Policy and Curriculum Council approved the following graduate curriculum recommendations.

Please note that the Faculty of Health Sciences Executive Committee approved the report on January 25, 2012.

The enclosed documents are now submitted to Graduate Council for its meeting on February 28, 2012.

FOR GRADUATE COUNCIL APPROVAL

Occupational Therapy
M.Sc. program – change in course requirements and change in calendar description

Rehabilitation Science
Ph.D. program – change to the comprehensive examination process
M.Sc. program (course-based; online) – change in course requirements

FOR GRADUATE COUNCIL INFORMATION

Biochemistry

*6E03 – Gene Regulation and Stem Cell Development – change in title and description to match the equivalent 400-level undergraduate course

Health Management

*705 – Evaluating Sources of Evidence for Management and Evaluation – change in method of evaluation

*706 – Health Management Foundations I – change in description and content

McMaster University

SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS / PROCEDURES

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:

1. This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2. An electronic version of this form must be emailed to the Assistant Secretary and SynApps System Administrator (Email: *espiritu@mcmaster.ca*).
3. A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	School of Rehabilitation Science
NAME OF PROGRAM	Occupational Therapy

PROGRAM DEGREE	**Ph.D. ( )**	**M.A. ( )**	**M.A.Sc. ( )**	**M.B.A. ( )**	**M. Eng. ( )**	**M.Sc. (X)**	**Diploma Program ( )**	**Other *(Specify)***

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*

CHANGE IN ADMISSION REQUIREMENTS		**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**		**CHANGE IN COURSE REQUIREMENTS**	X

CHANGE IN THE DESCRIPTION OF A <u>SECTION</u> IN THE GRADUATE CALENDAR	X	**EXPLAIN:** Additions: All courses are required. Information about the Police check policy as a condition of admission added.
OTHER CHANGES	X	**EXPLAIN:** The OT program has made revisions, initiated by a desire to reorganize clinical fieldwork.Course revisions were made to accurately reflect contact hours.

DESCRIBE THE <u>EXISTING</u> REQUIREMENT/PROCEDURE:

All courses are required - see attached table for a summary of current courses across 6 terms of study. Current courses total the equivalent of 12 full courses; this has included five clinical practica (a total of 28 weeks) which were incorporated into PREP courses (although that arrangement resulted in excess hours beyond typical contact hours for full courses). In addition, the EBP project had five full time weeks devoted that was considered part of the term 5 PREP course; again this was not an accurate reflection of course hours.

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

All courses will be required - see attached table for a summary of changes in courses from the current and description of proposed course changes and new courses with weightings. The explanation column provides further rationale for each change. The proposed courses total the equivalent of 15 full courses; this will include four clinical practica (a total of 28 weeks). The practica have been proposed as courses on their own; each weighted as a half course to reflect the amount of contact time students will have with the course coordinator and preceptor. In the second year; the equivalent of 5 courses plus the EBP project hours will be reorganized into 7 courses.

While admissions policy and process will not change, an addition has been made to the graduate calendar alerting students to the Police Check Policy (approved by Senate in December 2010) which requires a clear police check as a condition of admission.

RATIONALE FOR THE RECOMMENDED CHANGE:

This is a course based masters degree, that prepares students for clinical practice as occupational therapists. Accreditation standards must be maintained, including a minimum 1000 hours of clinical fieldwork. The program has been organized into six terms of study, typically including 9 weeks of academic coursework (11 weeks in the first term), followed by a practicum. A total equivalent of 12 full courses have been required, with 28 weeks practicum. Practica experiences currently are part of a course entitled: Professional Roles and Experiential Practicum; however the contact hours have historically exceeded those expected in a full course. As part of the 5th academic term, students participated in a full time, five week evidence-based practice project in lieu of a clinical practicum; however, variation in project demands has meant that it has frequently been less than ideal to have all project hours in such compressed timelines. Contact hours for this project have not been well-reflected in the curriculum.
The program will continue as a course-based masters degree. This will be met through 28 weeks of practica, spread across four practia, which will be distributed throughout the two years of study (there will never be a time when both classes are in clinical sites at the same time, easing significant current strain on resources). The curriculum will be organized into five academic terms (3 in first year, 2 in second year) with two long (8 week) practica in second year. Practica courses will be introduced as independent courses to better reflect the contact hours that these learning opportunities demand. An equivalent of 15 full courses will be required. Comparison with other Ontario Occupational Therapy Programs suggests the credit/course demands are similar.

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*

Implementation will be Sept 2012 for the cohort entering that year; the class that entered September 2011 will continue in the program as previously approved.

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

Program Requirements
The Master of Science in Occupational Therapy is a full time course-based professional Master's program which meets practice standards and professional accreditation. It prepares students with the knowledge skills and professional behaviours to practice as entry level occupational therapists. The program utilizes a problem-based self-directed learning philosophy. Students will complete course work, fieldwork, and an independent evidence-based practice project during their two extended study years, from September to July (Year 1) and September to September (Year 2). All courses are required. Students will receive a General Guide, a Curriculum Guide, and a Professional Practice handbook which provide more detail regarding procedures and requirements. In the event of a discrepency between these documents and Graduate Calandar, Graduate Calendar represents the official policy.
Admission Requirements:
To be eligible for admission to the M.Sc.(OT) program, applicants must have completed a four-year baccalaureate degree or the equivalent number of courses (120 units/credits) and have achieved a minimum grade-point average of "B" or 75% or 3.0/4.0 or 8.0/12.0 in their final 60 units of credit. Post-graduate coursework is also considered in this GPA calculation, and calculated on a case-by-case basis.
Applicants may apply during the fourth year of their degree. In this case, the pre-admission GPA for eligibility purposes is calculated using the most recent 60 units of credit towards their degree. If an applicant in this category is subsequently offered admission to the program, the offer is "conditional" upon successful completion of their four-year degree by June 30 in that year and maintenance of a B average in their final 60 units of credit.
An offer of admission is contingent upon a "clear" Police Check (including vulnerable-sector screening and a police record check) or approval by the Assistant Dean (as per the Police Records Check Policy approved by McMaster University Senate December 8, 2010). See http://www.srs-mcmaster.ca/Portals/20/pdf/admission/OT_PT_Student_Police_Records_Check.pdf for the full policy.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Lori Letts Email: lettsl@mcmaster.ca Extension: 27816 Date: November 15, 2011

If you have any questions regarding this form, please contact Medy Espiritu, Assistant Secretary and SynApps System Administrator, School of Graduate Studies, extension 24204.

OT Program Proposed Changes to Courses (all required)					
Term / semester	**Current course**	**weighting**	**Proposed New OT program**	**weighting**	**Explanation re: Change**
year 1 fall	616 Foundational Knowledge	0.5	616 foundational knowledge	0.5	No change
	617 I&I	1	617 I&I	1	No change
	618 PREP	1	618 PRS	1	Same number of classroom hours; practicum evaluation removed; course name change
			619 Practicum I	0.5	New course - practicum - 4 weeks
year 1 winter	626 Foundational knowledge	0.5	626 Foundational knowledge	0.5	Change in prerequisite courses
	627 I&I	1	627 I&I	1	No change
	628 PREP	1	628 PRS	1	Same number of classroom hours; practicum evaluation removed; course name change; change in prerequisite courses
			629 Practicum II	0.5	New course - practicum - 8 weeks
year 1 spring	637 I&I	1	637 I&I	1	Change in prerequisite courses; change in course name to better reflect content
	638 PREP	1	638 PRS	1	Same number of classroom hours; practicum evaluation removed; course name change; change in prerequisite
year 2 fall	717 I&I	0.5	717 I&I	1	All fall year 2 courses are increasing in number of weeks in class - from 9 - 14 - additional content from old 727/728/748; Prerequisites to change. NOTE: All year 2 course change forms will be submitted for the 2012-2013 academic year.
	718 PREP	0.5	718 PRS	1	
	747 EBP	0.5	747 EBP	1	

year 2 winter			729 Practicum III	0.5	New course - practicum 8 weeks
	727 I&I	0.5			All old term 5 courses being removed - content incorporated as needed into year 2 fall and year 2 spring enlarged courses
	728 PREP	0.5			
	748 EBP	1			
year 2 spring	737 I&I	0.5	737 I&I	1	All spring year 2 courses are increasing in number of weeks in class from 9 - 17 additional content from 727/728/748 and includes EBP project time which was formerly incorporated as part of 718 PREP
	738 PREP	0.5	738 PRS	1	
	749 EBP	0.5	749 EBP	1	
			739 practicum IV	0.5	New course - practicum 8 weeks
TOTAL Course credits		12		15	
TOTAL Weeks practicum		28		28	

Appendix:

I&I: Inquiry & integration – typically includes 3 hours per week large class lecture; 1 – 2 PBT group meetings per week
PREP: Professional Roles and Experiential Practicum
PRS: Professional Reasoning and Skills
EBP: Evidence-based Practice

November-15-11

MEMORANDUM
To: GPCC
From: Joy MacDermid
Assistant Dean, Rehabilitation Science Graduate Program
Date: November 11, 2011
Re: Changes to comp exam process

The following changes are proposed to the Comprehensive Examination Process in the Rehabilitation Science PhD Program. A clean copy of the document is provided given the number of changes (which are summarized below).

RATIONALE: Our comprehensive process is new and we are gaining experience with how to maximize the efficiency of the students' learning and avoid a lack of clarity in what tasks can be proposed. Given that we have a Comprehensive Oversight Committee, we now have a better sense of the barriers/misconceptions that are common across trainees. We are concerned with promoting better timeliness of achieving this milestone. Given the comprehensive process requires three specific tasks that we view as critical to promote fundamental skills, we want to assure we are being efficient in the process. This document provides more structure and clarity on the specific tasks and the nature of the work that should be included in the comprehensive proposal. This revision extends a minor revision approved last year. That provision allowed students to propose a research grant component that was aligned with their thesis area. This change was welcomed by the students/thesis supervisors, but additional points of confusion are now being clarified.

The additional changes now:

1. **clarify timelines**
2. **make it clearer that the scholarly paper must <u>not</u> be on the thesis topic,**
3. **clarify committee involvement in the process**
4. **place restrictions on the length of the proposal**

We have added stricter guidelines on length of the proposal and timelines. We have found students tend to do more than is required for writing their proposal and are taking too long to develop proposals versus focusing on conducting the components. We wish to refocus the emphasis and provide timelines for completion of the comps once submitted (this was not previously stated). Streamlining the proposal and clear timelines is required to ensure students meet the comprehensive defense timeline.

COMPREHENSIVE EXAMINATION
Overview

1. Students are expected to successfully complete the Comprehensive Examination process within 18 months (by 5th term) for full-time students and within 28 months (by 7th term) for part-time students, starting from the date of admission to the PhD program.

2. The Comprehensive Examination process will include the submission and oral defense of a Portfolio as described in point 4 below.

Purpose

3. The purpose of the Comprehensive Examination is for students to demonstrate a breadth of knowledge and skills as Rehabilitation Scientists. Specifically, they are expected to demonstrate their competency in areas that extend beyond their thesis work, including the ability to:
   a) Critically appraise and synthesize concepts, theories, research literature and key themes within their field, but distinct from their thesis topic
   b) Produce written and oral communications that meet scientific standards for peer-reviewed publication and presentation
   c) Produce a funding application that meets scientific standards for peer-reviewed grant funding
   d) Develop effective strategies to transfer rehabilitation research knowledge to various stakeholders (e.g. peers, students, policy makers, lay public)

Content of Portfolio

4. The Portfolio must include the following scholarly materials:
   a) A scholarly paper ready for submission to a peer reviewed journal. This paper may consist of a theoretical/conceptual paper; or a primary/secondary research analysis. The scholarly paper must demonstrates breadth by being distinct from the thesis in terms of the content area addressed; and may also be an opportunity to demonstrate breath in methods. That is, the content must address a different content area than the thesis research. Students will be expected to explain how the content and methods are distinct from those addressed by their thesis. Students should consider that if a proposed paper could reasonably be seen as viable chapter within their manuscript thesis, then it is probably not sufficiently distinct from the thesis.
   b) A grant proposal of 10 pages ready for submission to an appropriate agency that conducts peer reviews of submissions for operating funds. The research grant may request funding for the thesis research, or may request operating funds for a different project. **Personnel awards are not considered eligible products to fulfill this criterion**. The grant should follow grant agency guidelines but must include:

- Rationale for the study and a review of the literature
- Detailed description of the research methods and analysis
- Preparation of a budget
- Any other components required by the agency (e.g. lay summary, description of pilot work, description of researchers' roles)

c) A knowledge translation package/module- Students will develop and evaluate one aspect of knowledge translation e.g. resources, tool or interventions. Target audiences may include clinicians, policymakers or patients/public. Examples include any of the following:

1. Informational resources (e.g. databases, knowledge refineries, evidence support systems)
2. Knowledge products (e.g. lay or policy evidence summaries, interactive workshops, brochures)
3. Application tools, stand-alone tools (e.g. computer/CD/web-based guides or modules, instruction manuals)
4. Decision support tools (e.g. practice guidelines, decision rules, decision support tools)
5. Behaviour change interventions (e.g. Audit and feedback, reminders, knowledge brokering, opinion leaders)

The description of the KT must include the following:

1. Statement of the problem being addressed and the supporting evidence indicating what action is needed.
2. Definition of the components of the evidence-gap being addressed and the target audience
3. A specific description of the KT component to be developed (recruitment of targets, components of the KT, implementation strategy)
4. A description of how the KT will be evaluated (outcome evaluations); and how these evaluations will be used.

<u>Distinction of the portfolio from other academic activities and products</u>

The comprehensive proposal meets the learning needs of the student and supplements the knowledge and skills obtained through thesis research. It is important that the work presented for credit in the comprehensive portfolio does not duplicate work that has, or will be, provided academic credit e.g. part of the thesis research or coursework. The funding application and knowledge translation components of the Comprehensive Portfolio can be related to the thesis or coursework, but must not duplicate course assignments or sections of the thesis. The scholarly paper must be on a topic that is clearly distinct from the thesis. Ultimately, the comprehensive committee adjudicates whether it is sufficiently distinct. A paper that uses a different target population, topic and methods is clearly distinct. Where there is overlap on any these, the student explanation of distinction from the thesis research will be critical. Comprehensive components, including the scholarly paper, can extend or build on course assignments; but this distinction must be clarified in the portfolio. For example, a course paper that is substantively enhanced and revised can be included as a comprehensive scholarly paper. A

knowledge translation tool or product that is proposed during the KT course can be conducted and evaluated as the KT component of a comprehensive portfolio.

The grant proposal component may describe the methods proposed for the thesis; but must comply with the restrictions/format of the granting agency. To maintain consistency across applications students are required to submit a minimum 10-page grant application as part of their portfolio. On occasion students choose to apply to smaller grant agencies that have requirements for a short proposal. Where the student selects a granting agency with brief applications requirements; they should submit an extended 10-page version for the comprehensive proposal**.**

Portfolio Plan

5. It is expected that the students, with support and guidance from their Supervisor and Supervisory Committee, will begin working on the Portfolio upon admission to the program. Students should submit their comprehensive plan to their supervisory committee within the first eight-months in the program. Students are expected to obtain approval for their comprehensive portfolio plan from the Supervisory Committee and Oversight Committee within the first 12 months in the program. Once approved the student should complete the comprehensive components within 6-months to stay on-time. The detailed recommended milestones for full-time students to complete the comprehensive proposal on time are listed at the end of this document.

6. The Portfolio Plan can be a maximum of 8 pages (total length excluding references and appendices). Plans over 8 pages will be returned to students for editing. The plan should include the following:
   a) An overview of the initial plan for the thesis including proposed chapters, if known and a brief summary of the three components of the proposed portfolio.
   b) A list of completed or ongoing courses including titles of the assignments; an explanation that addresses any potential overlap between proposed portfolio components and thesis or coursework. (a and b - maximum of 2-pages)
   c) A description of each component of the proposed portfolio (2-page maximum for each component). Suggested guidelines for each component description include:
      - Overview of Component: Describe the basic goal and approach to be used in the component. Rationale: A brief list/description of the content knowledge or skills the component will provide.
      - Plan: A brief description of the methods that will be used during completion of the task; and
      - Outcomes: State the product to be delivered when the task is completed. For the scholarly paper this will require identification of a target Journal. For the grant application the target agency, type of funding call, and

research design/approach will need to be specified. For the knowledge translation project the specific KT deliverable will need to be identified; and the portfolio must outline how this deliverable will be evaluated.

Required appendices:

A. For paper: A copy of the target journal's instruction to authors

B. For the grant: The posted grant call and grant guidelines

C. For the KT: A copy of any tools to be evaluated (if developed)

- Potential Pitfalls and Their Management- A brief description of key potential barriers to task completion and how they will be mitigated.

Once the student's Supervisor and Supervisory Committee has reviewed and approved the student's Portfolio Plan, it is then submitted to the Oversight Committee. The Oversight Committee makes a decision on whether the student is prepared to proceed with the proposed work based on the following criteria of acceptability:

1. There is no duplication/inappropriate overlap between courses/thesis work and proposed comprehensive components
2. The scope of the work proposed is consistent with objectives of the Comprehensive Process to demonstrate breath of knowledge and skills.
3. There are no apparent critical flaws in the proposed work*

*Committee Roles in Comprehensive Process

The trainees' supervisor and committee has the main responsibility for insuring the quality of the work the student proposes and conducts. They are responsible for ensuring that the comprehensive process is used to enhance student skills and knowledge consistent with the overall training goals.

The Comprehensive Oversight Committee has the main responsibility for insuring the work proposed and conducted complies with program and university policies around the comprehensive process and academic integrity; and for organizing the Comprehensive Examination. The Oversight Committee reviews the plan to insure that it meets the objectives for the Comprehensive Examination Process; and that there is no duplication between previous and ongoing coursework. It also verifies that the manuscript is sufficiently distinct from the thesis research. The comprehensive committee does not judge whether optimal methods have been selected or determine if the proposed work is high quality. The Comprehensive Oversight Committee ***may*** make comments on feasibility or methods to benefit the student, but are not obligated to do so. The trainee is expected to discuss any advice provided by the committee with their supervisor and consider it in maximizing the quality, efficiency and success of their comprehensive components. The comprehensive oversight committee may fail to approve a comprehensive plan if a critical flaw is identified - since a critically flawed component is inconsistent with the objectives of the comprehensive process.

Defense of the Completed Portfolio

7. Once the Portfolio is complete it should be submitted to the Oversight Committee along with the signature sheet of the supervisory committee. Within 2 weeks, the Oversight Committee will review the Portfolio to ensure that the content is complete and congruent with the plan submitted and that it meets the objectives as outlined in point 4 above. Upon granting approval for defense, the Oversight Committee will, in consultation with the supervisor and student, set the date of the Comprehensive Examination and appoint the members of the Comprehensive Examination Committee (see point 10). **Students should complete their comprehensive portfolio within six months of the comprehensive plan being approved by The Comprehensive Oversight Committee to insure reaching their defence milestone on-time**.

8. The student must provide all members of the Comprehensive Examination Committee with a copy of the Portfolio at least 2 weeks prior to the examination date. In addition to the scholarly materials listed in point 4, the student must submit the following as part of their completed portfolio:

   a) The approved comprehensive plan including the appendices
   b) A description of deviations from the original comprehensive plan- with an explanation for the change (1 page maximum)
   c) A 1 page reflective summary on how the comprehensive component contributed to their training /development as a Rehabilitation Scientist/Educator; and implications for their future development.
   d) Curriculum vitae

9. The Portfolio will be presented and defended in an open-door meeting. The presentation and questioning will be open. The deliberations of the committee and feedback to the candidate will be performed with only the candidate, the candidate supervisor, The Assistant Dean of Rehabilitation Science and the examining committee present. The supervisor and Assistant Dean are present as observors.
   a) The student will outline the content of the 3 components of the Portfolio, and indicate how these projects have contributed to his or her development as a Rehabilitation Scientist (15 - 20 minute presentation). In addition, the student will describe the potential impact of their work on rehabilitation practice/policy/research.
   b) The Comprehensive Examination Committee will consist of two members from the student's Supervisory Committee, a member from the Oversight Committee, and an External Examiner (a content expert or specialist from outside the Rehabilitation Science PhD program). Examiners will evaluate the student on the criteria outlined in point 13. The supervisor will not be a

member of the Comprehensive Examination Committee; but will be encouraged to attend the oral defense.

10. The chair of the Comprehensive Examination Committee will be the representative from the Oversight Committee.

    a) All members of the Comprehensive Examination Committee (including the chair) will vote on the performance of the student (first on the written Portfolio and then the oral defense). If the Portfolio and its defense are considered acceptable to all of the committee members, the student will receive a "pass". To pass, no negative vote is permitted; abstentions are not allowed. If all committee members are in agreement, the outcome could also be a "pass with distinction". A pass with distinction should be considered if all three components are considered to be of excellent quality (a publishable manuscript, a fundable grant application and an effective knowledge translation product or intervention.

       If the result of the examination is "fail" (any of members vote "fail"), then the examining committee must define whether the written or oral components were unsatisfactory for each of the three components of the portfolio. The student must be given a second opportunity to take either the entire examination, or those portions on which the failure occurred. The Comprehensive Examination Committee will determine the requirements for the second opportunity (e.g. Written components to be re-submitted; components to be orally defended) and, conduct the second comprehensive examination; preferably with same examining committee.
       On the repeat examination, the committee should make every effort to achieve consensus on the final pass/fail decision. If the committee cannot agree, The Assistant Dean of Rehabilitation Science adjudicates the final decision. This may require that the decision be delayed until the Assistant Dean is able to pursue additional investigation and discuss issues with committee members independently.

11. The student will be provided with feedback from the Comprehensive Examination Committee at the completion of the examination. Usually this will take place by each member of the committee providing verbal feedback to the student at the end of the defense. The student's supervisor is invited to attend the feedback session to ensure that they are able to clarify or reinforce the feedback with the student at a later date; but does not provide respond to the feedback provided. Where a component has been failed; the Comprehensive Committee Chair must submit a written summary of the feedback to the student, with a copy to the student file and supervisory committee.

Criteria for Evaluation of the Defense

12. The purpose of the Comprehensive Examination is for students to demonstrate their ability to synthesize, integrate and apply information. The following are criteria they are expected to meet through the submission of the Portfolio and/or its oral defense:
    a) The Portfolio document is well-written and organized with appropriate development and defense of ideas and actions.
    b) The Portfolio content is of appropriate depth and breadth for the doctoral level and demonstrates the student's advancing knowledge of the chosen topics.
    c) The student is able to critically appraise the literature, and synthesize and integrate information, concepts and theories and apply these to critical thinking in their field.
    d) The student can pose a sound research question and design a study appropriate to answer it; recognize limitations; and defend his/her decisions.
    e) The student understands knowledge translation and is able to apply this knowledge to the conduct and evaluation of KT in their area of research
    e) The student communicates effectively.
    f) The student conveys an understanding of how their work fits within the field of Rehabilitation Science.

13. Recommended Milestones expected for on-time completion of the comprehensive proposal.
    a) Month 3 - The student arranges a meeting with supervisor to review the comprehensive proposal guideline and discuss plans for defining a training plan that will allow for completion of comprehensive portfolio requirements. This discussion should include 1. Opportunities that might facilitate early development of the manuscript 2. A research grant that facilitates the student's progress in the program and 3. A knowledge translation project that will align with the thesis research considering, but not duplicating work performed in the knowledge translation graduate course (RS 725).
    b) Month 5 - The student submits a brief (one page or less) written plan to supervisor outlining tentative components of the comprehensive plan. The student meets with the supervisor to discuss the proposal and finalize specific components to be included in the portfolio.
    c) Month 6-7 - The student submits a brief draft of the written plan for discussion to the supervisory committee (preferably at a supervisory committee meeting). This brief outline will address the planned components for the comprehensive portfolio plan and inform the committee discussion about how to optimize the comprehensive proposal plan.
    d) Month 8 - The student submits a draft, but complete, comprehensive portfolio plan to the supervisory committee for feedback and approval. Committees are requested to provide feedback and a statement about readiness to proceed within 3 weeks. The approval of the comprehensive

portfolio plan should be noted on the next supervisory committee meeting form.

e) Month 9 - The student submits the revised version of the portfolio plan to the Comprehensive Oversight Committee for approval.
f) Month 10 - The comprehensive oversight committee reviews the proposal and submits a written response to the student. Note-The comprehensive committee typically returns feedback within 2 (two) weeks.
g) Month 10 - The student addresses any remaining concerns of the comprehensive proposal committee and obtains approval from the comprehensive oversight committee to officially proceed with proposed comprehensive portfolio components.
h) Month 11-16 - The student completes the individual components of comprehensive portfolio*, and submits drafts to the supervisor/supervisory committee for feedback. The student completes revisions of these components as requested by the supervisory committee.
i) Month 17 - The student compiles the completed comprehensive portfolio and submits it to the Comprehensive Oversight Committee.
j) Month 18 - The student defends the comprehensive portfolio.

*__*Note many students begin work on tentative components of their comprehensive portfolio prior to official approval. This is an excellent strategy for overall success; but the final components of the comprehensive will be determined by the comprehensive plan approved. Deviations from the approved plan are sometimes required during task completion. For example, the focus of a paper/grant can evolve during the process; response rates may be lower than expected. Alterations to the plan in response to events that arise during conduct of the comprehensive components are described as such in the portfolio (as per 8c).*__

Revised November 11, 2011

McMaster University

SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS / PROCEDURES

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:

1. This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2. An electronic version of this form must be emailed to the Assistant Secretary and SynApps System Administrator (Email: *espiritu@mcmaster.ca*).
3. A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	School of Rehabilitation Science
NAME OF PROGRAM	Master of Science (Rehabilitation Science) (course-based ;online)

PROGRAM DEGREE	**Ph.D. ( )**	**M.A. ( )**	**M.A.Sc. ( )**	**M.B.A. ( )**	**M. Eng. ( )**	**M.Sc. (x)**	**Diploma Program ( )**	**Other *(Specify)***

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*

CHANGE IN ADMISSION REQUIREMENTS		**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**		**CHANGE IN COURSE REQUIREMENTS**	X

CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR		**EXPLAIN:** The calendar change would state on page 558 the these courses are mandatory (705, 706, 708).
OTHER		**EXPLAIN:**

DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:

For the course-based option, candidates must:
1. Complete, with at least a B- standing, a minimum of seven (7) graduate half courses.
• Five courses, RS *705, *706, *708, *709, *710 are mandatory.
• Students may take courses RS *700, *701, *702, *703, *707 as electives if they are able to be on site at McMaster University and *704 dependent on the availability of faculty.
• Two elective courses may be chosen from among on-campus and other distance education courses, including those offered by other universities. A list of preapproved courses for electives has been created (see the website) and approved by the Associate Dean of Rehabilitation Science and the Associate Dean of Graduate Studies (Health Sciences).
2. Complete the RS 730 scholarly paper to demonstrate integrative thinking while addressing an issue in rehabilitation.

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

The program has evolved and we have acquired an increasingly diverse set of learners with diverse learning needs. With expanded enrollment we are able to fund additional course development and instructors. This enhanced capacity can be used to accommodate additional courses options. The current requirements has become overly restrictive for meeting learner needs and expanding out target learners. We plan to retain the three core courses which we think are fundamental to our core expertise and represent our McMaster strengths (measurement, evidence-based practice, clinical reasoning). We are requesting a change to 3 required core courses with four electives and a scholarly paper. This will increase flexibility; but will not change the total workload. There will be no change in the total number of credits to acquire the Masters degree (the scholarly paper is currently considered two credits)

RATIONALE FOR THE RECOMMENDED CHANGE:

To provide better flexibility within the online Masters program so that students can meet their individualized learning needs ; to allow for expansion of the course options.

PROVIDE IMPLEMENTATION DATE: ***(Implementation date should be at the beginning of the academic year)***

September 2012

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

We will be changing the description in the calendar to say three required courses and four electives with a scholarly paper are required. See actual text changes below:

The following are the course requirements of the online Masters of Rehabilitation Science program. Student complete, with at least a B- standing, a minimum of three (3) required graduate half courses and four (4) electives, plus a scholarly paper. These include:

- RS *705, *706, *708, as the core mandatory (online) courses.
- Four elective courses may be chosen from online Rehabilitation Science options; and on-campus options, including on campus Rehabilitation Science courses. Other, approved distance education courses or face-to-face courses can contribute to course requirements . A list of preapproved courses for electives has been created (see the website) and approved by the Associate Dean of Rehabilitation Science and the Associate Dean of Graduate Studies (Health Sciences).
- The RS 730 scholarly paper to demonstrate integrative thinking while addressing an issue in rehabilitation.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Joy MacDermid Email: macderj@mcmaster.ca Extension: 22524 Date: 09/27/2011

If you have any questions regarding this form, please contact the Assistant Secretary and SynApps System Administrator, School of Graduate Studies, extension 24204.

SGS/medy