April 8, 2010

To : Members of the Faculty of Health Sciences Graduate Policy and Curriculum Council

From : Medy Espiritu
Assistant Secretary and SynApps System Administrator

The next meeting of the Faculty of Health Sciences Graduate Policy and Curriculum Council will be held on Tuesday, April 13, 2010 at 2:00 p.m. in MDCL-3016.

Listed below are the agenda items for discussion.

If you are unable to attend this meeting, please call extension 24204 or email espiritup@mcmaster.ca.

A G E N D A

I. Minutes of the meeting of February 10, 2010

II. Business Arising

III. Graduate Curriculum Revisions

Health Management
Calendar copy: Masters in Health Management program

Health Research Methodology
*733 – Statistical and Methodologic Issues in Randomized Clinical Trials
*758 – Qualitative Research Methods for Analysing and Interpreting Data

Occupational Therapy
*738 – Transition to Practice: Professional Roles and Experiential Practicum VI
Rehabilitation Science

*711 – Musculoskeletal Health Assessment and Diagnostics for Advanced Practice Therapists
*712 – Therapeutics for Advanced Practice Musculoskeletal Care
*714 – Statistical Methods in Rehabilitation Science – new course

IV. Graduate Faculty Participation – for Council information
I. Minutes of meeting

On a motion by Dr. Wilkins, seconded by Dr. Nodwell, the Faculty of Health Sciences Graduate Policy and Curriculum Council approved the minutes of the November 18, 2009 meeting.

II. Business arising

There was no business arising from the minutes of the previous meeting.

III. McMaster University-United Nations University Institute on Water, Environment and Health – Water without Borders diploma program

Dr. Elliott presented the proposed diploma program between McMaster University and the United Nations University Institute on Water, Environment and Health (UNU-INWEH) – *Water without Borders*. Dr. Elliott said the objective of the proposed program is to develop qualified personnel in the area of water-health to fill a growing global societal need for science and service, policy and practice, around the fundamental human issue of safe water provisioning. Dr. Elliott explained that students will be admitted to their home program using standard procedures. All programs linked to the proposed diploma program will have a link on their web site (for information) and their application (for submission) to the proposed program. She added that applications will require a supplementary essay describing why the student feels s/he would be a strong candidate for the diploma program, any experience they might have had in the area of international water policy, and their career goals/aspirations. Dr. Elliott said that all students in the program will be guided by the program regulations in their home department. In order to obtain the collaborative status with UNU-INWEH, Dr. Elliott said students will be co-supervised by faculty members from McMaster and UNU-INWEH and undertake three additional courses. Only when all requirements for the home program as well as the collaborative program are met will the student obtain both components of the diploma degree.
In response to a question concerning funding support, Dr. Elliott explained that students will receive scholarship and TA support in their home program as per standard operating procedures for that program. Additional funds for the costs of research related activities will come from UNU-INWEH funded projects. She further said that additional costs for the program are the director’s stipend, a 3-unit teaching buy out for the director, and administrative support. Dr. Elliott added that the program does not involve any tuition cost to the students. Mr. Scime responded that the University Fees Committee (not the program) is the body which makes decisions on student tuition fees. He said he will raise this issue with the University Fees Committee.

Dr. Lichty moved, and Dr. Hanna seconded,

“That the Faculty of Health Sciences Graduate Policy and Curriculum Council approve the proposed McMaster-UNU-INWEH - Water without Borders diploma program.”

Discussion ensued and the Council raised the following issues:

The nature of the co-supervision of students is not clearly explained in the document. There should be an agreement between the supervisor in the home department/program and the co-supervisor for the diploma; the process should ensure that the objectives of the thesis research supervisor and the co-supervisor are compatible.

It is not clear in the document when the courses will be taken by students in the diploma program, and at what point in their graduate studies they would enrol in the program.

Student funding is a concern (i.e., in the case of students still needing to finish requirements for the diploma but who are also nearing completion of their degree in the home department/program). How would these students be funded?

Time to completion is an issue (i.e., if a student has to travel abroad to fulfill a requirement in the diploma program, this may affect the completion time of the degree in the home department). Should the student put other academic commitments on hold and travel abroad?

There were some concerns as to how many of the faculty members on the list have research interests that pertain to water. The Council suggested reviewing the list of faculty members who will be involved in the proposed program.

The motion was carried subject to addressing the issues/concerns raised by the Council members.

IV. Graduate Curriculum Recommendations

Global Health
- Calendar copy for Global Health program

Dr. Baumann presented the calendar copy of the Global Health program.
Dr. Nodwell moved, and Dr. Schwartz seconded,

“That the Faculty of Health Sciences Graduate Policy and Curriculum Council approve the proposed calendar copy for the Global Health program, as described in the document.”

The motion was **carried**.

Dr. Baumann then discussed the proposed new courses for Global Health:

*701 – Global Health Foundations I
*702 – Global Health Foundations II
*710 – Learning Symposium/Field Orientation
711 – Scholarly Paper

Dr. Wilkins moved, and Dr. Nodwell seconded,

“That the Faculty of Health Sciences Graduate Policy and Curriculum Council approve the four new courses, *701, *702, *710, and 711 for the Global Health program.”

Upon reviewing the proposals, the members raised the following issues:

*702 – the method of evaluation should include a statement that the instructor will assign a grade based on input from students
*710 – the course should include pre- and post-departure briefing sessions

The motion was **carried** subject to the addressing of concerns raised by the members.

**eHealth**

The M.Sc. eHealth program proposed a new course, *701 – Research and Evaluation Methods in eHealth. Dr. Archer explained that the course has some overlap with HRM *721 – Fundamentals of Health Research and Evaluation Methods. Dr. Archer said there is no intention to overlap the course with *721. The program, however, has to create *701 because students in the eHealth program are only at the University during winter time and cannot take *721 in the summer. He added that course *701 will specify HRM *721 as its anti-requisite.

Dr. Wilkins moved, and Dr. Nodwell seconded,

“That the Faculty of Health Sciences Graduate Policy and Curriculum Council approve the new course *701 – Research and Evaluation Methods in eHealth, as described in the document.”

The motion was **carried**.

**Biochemistry**: Change to comprehensive examination
Since the proposal was discussed at the November 18, 2009 meeting, Dr. Nodwell said he was able to obtain suggestions and comments from Drs. Hayward, Martin, and Richards and from graduate students in the department. Referring to the revised version of the proposal, Dr. Nodwell reminded the Council that the department wishes to merge its Comprehensive Exam with the Transfer/Qualifying Exam. He said that the proposal will allow the department to assess the comprehensive knowledge of students when they take the Transfer exam (applicable to those with B.Sc. degrees) or the Qualifying exam (applicable to those with M.Sc. degrees), which occur early in the program. According to Dr. Nodwell, his department believes their current Comprehensive Exam does not ensure that students have substantial knowledge early in the program.

Dr. Nodwell said the current timing of the Comprehensive Exam also does not benefit students who enter the Ph.D. program with a Master’s degree since these students will take the Qualifying Exam after 8-12 months in the program, and then 6 months later they will be required to take the Comprehensive Exam, which is composed of similar material. He added that the current process leads to longer times to completion and lower productivity. Dr. Nodwell stated that the timing of the Transfer/Qualifying exam is more reasonable—if the student fails the Transfer exam, he/she will still be able to defend his/her M.Sc. and finish on time; and if a student with an M.Sc. degree fails the Qualifying exam, he/she can leave the University having lost only less than a year. Dr. Nodwell said the Ph.D. program in the Department of Biology has a similar process. The only difference between the two is that Biology retained the comprehensive examination for students admitted directly to the Ph.D. program, while Biochemistry’s proposal is to merge the comprehensive examination with its existing Qualifying Exam.

Dr. Nodwell said that Ms. McCahill-Harrison had sent some minor revisions to the document before the meeting. He said he will revise the document to address the issues raised by Ms. McCahill-Harrison.

Dr. Nodwell moved, and Dr. Wilkins seconded,

“that the Faculty of Health Sciences Graduate Policy and Curriculum Council approve the proposed changes to the comprehensive examination for the Department of Biochemistry and Biomedical Sciences.”

The motion was carried (subject to the discussion above, and on the condition that the revised document will be sent to the Graduate Associate Dean for Health Sciences for review).

Nursing

The School of Nursing has proposed the following graduate curriculum recommendations:

- Change in calendar description – M.Sc. Nursing
- Change in course description – Nursing *701
- New course: *768 – Building a Repertoire of Decision Making Skill
Dr. Baxter moved, and Dr. Wilkins seconded,

“that the Faculty of Health Sciences Graduate Policy and Curriculum Council approve the proposed graduate curriculum changes from the School of Nursing, as described in the documents.”

After the discussion the Council raised the following issues:

Mr. Scime commented that since the Primary Health Care Nurse Practitioner (PHCNP) program did not obtain approval, any reference to this program should be omitted from the documents presented to the Council. It was then suggested instead to use the term, “PHCNP certificate.”

*701 – Theoretical Basis of Nursing Practice – there was a suggestion that the document should specify when students are to undertake the practicum component of the course.

The motion was carried (subject to the addressing of issues raised by the members).

**Health Management**

The Health Management program is proposing two new courses:
- *700 – Health Systems and Policy Analysis
- *705 – Evaluating Sources of Evidence for Management and Evaluation

Dr. Wilkins moved, and Dr. Hanna seconded,

“that the Faculty of Health Sciences Graduate Policy and Curriculum Council approve the new courses, *700 and *705 for the Health Management program, as described in the documents.”

The motion was carried.

**Health Research Methodology**

Dr. Hanna presented the following graduate curriculum changes proposed by the Health Research Methodology program.

Changes to courses:
*713 – Health Quality Improvement
*721 – Fundamentals of Health Research and Evaluation Methods
*723 – Regression Analysis
*727 – Theory and Practice Measurement
*733 – Statistical and Methodological Issues in Randomized Clinical Trials
*739 – Biostatistical Collaboration
*740 – Advanced Decision Analysis in Health Technology Assessment (HTA)
*741 – Introduction to Health Technology Assessment
*743 – Systematic Review Methods
*750 – Practical Bayesian Design and Analysis in Clinical Studies
*771 – Fundamentals of Health Research and Evaluation Methods (Online)
*790 – Advanced Analysis of Survey Data

There was a comment that in the Content/Rationale section of the document for *713 – Health Quality Improvement, the phrase “no main text” should be clarified. Course *733 – Statistical and Methodological Issues in Randomized Clinical Trials was withdrawn for approval due to lack of information concerning its method of evaluation.

Dr. Hanna moved, and Dr. Baxter seconded,

“that the Faculty of Health Sciences Graduate Policy and Curriculum Council approve the proposed changes for the Health Research Methodology courses *713 (subject to clarification), *721, *723, *727, *739, *740, *741, *743, *750, *771, and *790, as described in the documents.”

The motion was carried.

Physiotherapy

The Physiotherapy program has recommended the following graduate curriculum changes.

Change in course title and description:
*613 – Foundational Knowledge for the Physiotherapy Practitioner
*722 – Community-based Physiotherapy – Clinical Laboratory V

Change in course description:
*612 – Fundamentals of Physiotherapy Practice/Clinical Laboratory I
*622 – Fundamentals of Musculoskeletal Practice/Clinical Laboratory II
*731 – Integrated Physiotherapy Practice – Problem-based

Dr. Wilkins moved, and Dr. Stampfli seconded,

“that the Faculty of Health Sciences Graduate Policy and Curriculum Council approve the proposed graduate curriculum changes for the Physiotherapy program, as described in the documents.”

The motion was carried.

Occupational Therapy

The Occupational Therapy program has submitted the following graduate curriculum changes.

New courses:
*616 – Foundational Knowledge I
*626 – Foundational Knowledge II
Change in course title:
*727 – Adulthood Community & Participation: Inquiry and Integration V
*728 – Adulthood Disability & Participation: Professional Roles and Experiential Practicum V

Dr. Hanna moved, and Dr. Wilkins seconded,

“that the Faculty of Health Sciences Graduate Policy and Curriculum Council approve the graduate curriculum proposals from the Occupational Therapy program, as described in the documents.”

The motion was carried.

V. Graduate Faculty Participation

Dr. Hayward presented the list of Graduate Faculty Participation for Council information. The members asked for some clarifications concerning the following faculty members on the list: Sandra Ireland and Jennifer Couturier (whether their memberships consist of courses and committees at both Master’s and Ph.D. levels). Dr. Wilkins commented that Lynne Geddes’s membership entails only courses and committees at the Master’s level. Cynthia Balion’s membership should be changed to full membership conditional upon two years funding. The list will be amended based on the comments from the members.

There was no other business, and the meeting adjourned at 4:40 p.m.
The Masters in Health Management program is delivered through a partnership between McMaster's DeGroote School of Business and School of Rehabilitation Sciences (Faculty of Health Sciences) and is offered through distance education online, on a part-time basis, and designed specifically for health professionals who are currently employed in a clinical and/or management capacity in any health care sector in Canada or internationally.

Many health professionals seek advanced knowledge and skills in health management as their careers progress. The complexity of the contemporary health care environment and the new demands made upon clinicians has made it necessary for practitioners seeking to move into management to acquire additional knowledge and skills that have evolved since they graduated from their baccalaureate programs.

The Master of Health Management (MHM) provides regulated health professionals with a combination of core management skills (accounting, finance, marketing, human resource management etc.) and a broad understanding of the Canadian health care policy development and service delivery environments (health system design, health policy analysis, and evidence based decision-making).

The program curriculum includes graduate course work and critical analysis and synthesis of management research to ensure the development of knowledge and skills for management of health care programs and organizations. By bringing together graduate courses from business and health care, the Master’s program prepares graduates to work effectively in health management positions in the future. Students will gain the knowledge, skills and abilities necessary to excel as a middle or senior manager within both the public and private spheres of Canada's health care sector.

The core competencies identified below represent the minimum knowledge and skill expectations students will attain in order to complete the MHM program. These competencies are gained through coursework, self-study, group interaction and other experiential learning activities throughout the program.

1. **Lifelong Learning** *(Understanding, demonstrating and promoting the necessity for continuous learning among professionals.)*

2. **Communication Skills** *(Understanding and demonstrating effective communication styles and techniques and use of related technologies.)*

3. **Conceptual Skills** *(Identifying, synthesizing and analyzing information in a coherent and methodical way to advance problem solving and the creation of new information.)*

4. **Awareness of the Political and Healthcare Environments** *(Awareness and appreciation of the complexities and interrelationship between the political and healthcare environments.)*
5. Organizational Behaviour and Human Resource Management *(Demonstrate an understanding of how organizations function and human resources plays a key role within organizations.)*

6. Financial Management *(Demonstrate an understanding of financial data and related management techniques which support good financial management practices.)*

7. Research Awareness *(Awareness and demonstrated understanding of the creation and use of research.)*

8. Leadership *(Awareness and demonstration of skills which motivate others to excel within an ethical and supportive environment.)*

Two short residency periods (3-4 days each) will be required of students during their time in the program.

Email: MHM@mcmaster.ca

Fax: 905.524.0069

Website: www.MacHealthManagement.com

**Staff / Fall 2010**

**PROFESSORS**

Vishwanath Baba, B.Eng (Madras), MBA (Western Illinois), Ph.D. (British Columbia)

Susan Baptiste, Diploma in OT (UK), M.HSc. (McMaster)

Trevor Chamberlain, B.Sc. (Berkeley), MBA (McGill), Ph.D. (Toronto)

Mary Law, B.Sc.(Hons) (Queen’s), M.Sc. (McMaster), Ph.D. (Waterloo)

Patricia Solomon, Dip (PT) (Manitoba), M.HSc. (McMaster), Ph.D. (Waterloo)

Paul Stratford, Cert. (PT) (McMaster), Dip. (PT) (Mohawk), M.Sc. (McMaster)

Yufei Yuan, B.S. (Fudan, Shanghai), Ph.D. (Michigan)

**CLINICAL PROFESSORS**

Lynne Geddes, B.Sc. (Western), M.R.E. (Toronto)
ASSOCIATE PROFESSORS

Nicholas Bontis, BA (Western), Ph.D. (Western)
Brian Detlor, B.Sc. (Hon Comp Sci) (Western), M.Sc. (Toronto), Ph.D. (Toronto)
Lori Letts, B.Sc. (Western), M.A. (Waterloo), Ph.D. (York)
Susan McCracken, B.Comm. (Hons) (Queen’s), Ph.D. (Waterloo)
Julie Richardson, Dip. (PT) (Dunedin NZ), B.Sc. (Toronto), M.Sc. (Otago), Ph.D. (Toronto)
Debra Stewart, B.Sc. (OT) (Toronto), M.Sc. (McMaster)
David Taylor, B.A. (Hons) (Toronto), M.P.A. (York), Ph.D. (York)
Joyce Tryssenaar, B.Sc. (Western), M.Ed. (Brock), Ph.D. (Western)
Seanne Wilkins, Dip. (PT/OT) (Toronto), B.Sc. (OT) (Toronto), M.Sc. (Toronto), Ph.D. (Toronto)

ASSISTANT PROFESSORS

Catherine Connelly, B.Com (Hons) (McMaster), M.Sc. (Queen’s), Ph.D. (Queen’s)
Terence Flynn, B.A. (Carleton), M.S. (Syracuse), Ph.D. (Syracuse)
Bonny Fung-Ming Jung, B.Sc. (OT) (Toronto), M.Ed. (Brock), Ph.D. (ABD) (Western)
Christopher Longo, B.A. (York), M.Sc. (Western), Ph.D. (Toronto)
Teal McAteer, B.Comm (Queen's), M.I.R. (Toronto), Ph.D. (Toronto)
Glen Randall, B.A. (Hons) (McMaster), M.A. (McMaster), M.B.A. (McMaster), Ph.D. (Toronto)
Patricia Wakefield, B.Sc. (Alberta), M.Sc. (Cornell), M.P.A. (New York), DBA (Boston)

ASSISTANT CLINICAL PROFESSORS

Constance Mitchell, B.Sc. (OT) (Queen’s), M.Sc. (OT) (Dalhousie)
The general regulations for this degree appear under the Regulations for Master’s degrees near the beginning of this Calendar.

The admission requirements for the Masters in Health Management are:

**The admission requirements for the Masters in Health Management include:**

1. Regulated health professional (evidence of registration in the applicant’s professional affiliation in his/her own province/country). Examples of regulated health professionals include audiologists, dieticians, nurses, occupational therapists, psychologists, physiotherapists.

2. Graduation with a minimum of a B+ average from a 4-year baccalaureate health professional program.

3. Two academic and two clinical/workplace related references.

4. Written application outlining career plans, research interests and suitability for the Master of Health Management Program.

5. If the applicant’s native language is not English, an official copy of their TOEFL score, or other evidence of competency in English. A minimum TOEFL (iBT) score of 92 (580 on the paper-based TOEFL test or 237 on the computer-based TOEFL test) is required.

Candidates must:


2. Completion of one elective course. This may be chosen from among on-campus (e.g. Rehabilitation Science Program or Master of Business Administration Program), other distance education courses, including those offered by other universities, and may be geared towards the particular interests of the student. A list of pre-approved courses for electives has been created (see the website) and approved by the Associate Deans of Graduate Studies (Health Sciences and Business).

3. Complete HM 730 scholarly paper to demonstrate integrative thinking in the study of health management at a general and abstract level.

**Courses**

Courses marked with an asterisk (*) are half courses.
HM 700* **Health Systems and Policy**  
This course is the introductory course for the Master of Health Management program. It will provide students with an understanding how the Canadian health care system is organized as well as how services are financed and delivered. This will be done through an assessment of the Canada Health Act and various pieces of related provincial healthcare legislation. Discussions will include an exploration of the for-profit and not-for-profit mix of services within Canada. In addition, students will be exposed to the principles of evidence-based decision-making and various health policy analysis tools. Current issues and trends in health policy (both within Canada and internationally) will serve as cases to which students apply those tools.

HM 705* **Evaluating Sources of Evidence for Management and Evaluation**  
This course is designed to provide students with the knowledge and skills to understand and critically evaluate sources of evidence used to support decision making within a health care environment. Students will develop knowledge about the principles of evidence-based decision-making, searching the literature, and critically reviewing research methods and analyses. The course emphasizes the development of skills to apprise, synthesize and communicate evidence in order to use it within management decision-making.

HM 706* **Health Management Foundations I** *(pending GPCC approval)*  
This course will enable students to develop knowledge and skills in related to management principles and practices involved in the delivery of health care products and services in for profit and not for profit environments. The impact of cultural and ethical issues on workplace structure will be examined in detail. Students will build skills in the selection and development of marketing and communication strategies. Course content includes: human resources; legal issues; negotiations; organizational behaviour; and marketing principles and theories and their application in health care management. Evaluation methods will include participation in online discussions, analytic review of health management marketing topic, and major paper focused on a foundational issue in health management.

HM 707* **Health Management Foundations II** *(pending GPCC approval)*  
Through this course, students will gain knowledge about the fundamental concepts and practical issues related to accounting and finance and their uses in planning, decision making and control in health care management. Skills in the basics of managerial finance and managerial accounting, budgeting and forecasting will be developed through discussion, case studies and course assignments.

HM 708* **Leadership in Health Organizations** *(pending GPCC approval)*  
This course explores principles, practices, trends and issues of leadership in health management settings. Current theories of leadership with attention to styles, practices, tasks and models will be covered. Participants will be encouraged to reflect on and analyze their own leadership experiences in light of theories studied. Through the
interplay of theory and practical application, participants will gain a deeper appreciation for the requirements, responsibilities, and consequences of effective leadership.

HM 730 / Scholarly Paper (pending GPCC approval)
This full course is designed as an opportunity for graduate course based students to demonstrate, in writing, their ability to integrate ideas that reflect current knowledge in areas of health management practice, education, research, and/or policy. The scholarly paper is to demonstrate integrative thinking at a general and abstract level. A student will identify a topic, and in consultation with a faculty member with expertise in the area develop a proposal that is individualized to the student’s area of interest. The student will then develop the paper under the guidance of a faculty member. The paper must be 25 to 30 pages, excluding references and appendices. The paper does not typically involve the collection or analysis of primary data or the conduct of research with subjects. It is a scholarly essay, not a thesis.
To: Ann Greene, Health Sciences Graduate Programs Coordinator

From: Steve Hanna, Assistant Dean – HRM
      Kristina Vukelic, HRM Curriculum Coordinator

Date: Monday, March 15, 2010.

Re: GPCC Form Changes (HRM *733 and HRM/NUR/RS *758)

**HRM *733: Statistical and Methodological Issues in Randomized Clinical Trials**

- Overall changes: Change in the instructor, calendar course description, content/rationale and evaluation methods
- Change to the instructor:
  - The 2007 version listed “Lehana Thabane and Staff”; the proposed (2010) version lists “Stephen Walter”.
- Change to “Brief Calendar Description”
  - Revised the order of topics listed in the second sentence, specified two topics (“cost effectiveness analysis” and “statistical analysis of cost-effectiveness data”) – previously (2007) listed as “economic evaluation in clinical trials” only; added “non-inferiority trials” and removed “Bayesian analysis of trials” and “data monitoring”.
  - Now, 2009: “Specific topics will include issues in sample size determination, large simple trials, factorial designs, cluster randomization, cross-over trials, missing data in RCTs, meta-analysis, non-inferiority trials, subgroup analysis, composite outcomes in RCTs, stopping rules, cost-effectiveness analysis, statistical analysis of cost-effectiveness data, and repeated measures in RCTs.”
- Change the “Content/Rationale” section:
  - The 2007 version listed the calendar description in the content/rationale section as well. The proposed (2010) version includes the text “See Above” – referring the reading to review the “Brief Calendar Description” section.
- The “Method of Presentation...”:
  - The previous (2007) version was “Each tutor will provide a mark based on the assignments. These marks will be weighted, based on the number of assignments given by the corresponding tutor, to provide an average which will count for 75% of the course. In addition, students will be graded on a presentation based on the methodologic issue of a particular trial from the current literature. The presentation will count for 25% of the final grade.”
  - The proposed (2010) version is: “

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Final Project
• verbal presentation of your own project at the end of the term  (1/3)
• write-up of your project  (1/3)

Weekly contributions to class (1/3)
These are set session instructors and will vary from week to week but will include
• short assignments for some weekly sessions
• participation in group discussions

The most significant components of the evaluation will be the presentation and write up
of your term project; the presentation and write up will each be worth 1/3 (33%) of the
total for the course. The remaining 1/3 will be based collectively on the other
components (attendance at and participation in class, and weekly assignments that are
set by session instructors).”

HRM/NUR/RS *758: Qualitative Research Methods for Analysing and Interpreting Data

• Overall proposed changes to the “Method of Evaluation” section & added an ‘X’ to indicate that the course is a “HALF COURSE” (only change to the form – HRM/NUR/RS *758 has always been a HALF CREDIT COURSE)

• Changes to the “Method of Evaluation” include:
  o Previous (2009) distribution of grades were: Two papers (65%) – paper 1 (25%) & class participation & journaling (10%)
  o The proposed (2010) distribution of grades is:
    ▪ Two papers (60%)
      • Paper 1 (20%)
      • Paper 2 (40%)
    ▪ Participation & Journaling (15%)
**PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:**

1. This form must be completed for **ALL** course changes. 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.

<table>
<thead>
<tr>
<th>DEPARTMENT/PROGRAM</th>
<th>Health Research Methodology Program</th>
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</thead>
<tbody>
<tr>
<td>COURSE TITLE</td>
<td>Statistical and Methodologic Issues in Randomized Clinical Trials</td>
</tr>
<tr>
<td>COURSE NUMBER</td>
<td>733</td>
</tr>
<tr>
<td>INSTRUCTOR(S)</td>
<td>Stephen Walter</td>
</tr>
<tr>
<td>PREREQUISITE(S)</td>
<td>HRM *702 and HRM *730 or permission of instructor</td>
</tr>
</tbody>
</table>

**NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)**

- **NEW COURSE**
  - Date to be offered:
  - Was the proposed course offered on Dean’s approval? If yes, provide the date:

- **WILL THE COURSE BE CROSS-LISTED WITH ANOTHER DEPARTMENT?**
  - If yes, attach to this form any relevant correspondence with the other department(s). Note: Cross-listing of courses requires approval from each department and faculty concerned.

- **CHANGE IN COURSE TITLE**
  - Provide the current course title:

- **CHANGE IN COURSE DESCRIPTION**
  - 600-LEVEL COURSE (Undergraduate course for graduate credit)
    - Please see #4 on page 2 of this form

- **CHANGE TO FULL COURSE**
  - Change to half course:
  - Change to quarter course:

- **COURSE CANCELLATION**
  - Provide the reason for course cancellation:

- **OTHER**
  - Explain:
    - Change in brief calendar description, evaluation methods and instructor.

**BRIEF DESCRIPTION FOR CALENDAR** - Provide a brief description (maximum 6 lines) to be included in the Graduate Calendar.

This course will consider important statistical issues relating to the design, analysis and interpretation of randomized clinical trials. Specific topics will include issues in sample size determination, large simple trials, factorial designs, cluster randomization, cross-over trials, missing data in RCTs, meta-analysis, non-inferiority trials, subgroup analysis, composite outcomes in RCTs, stopping rules, cost-effectiveness analysis, statistical analysis of cost-effectiveness data, and repeated measures in RCTs.

**CONTENT/RATIONALE** - Provide a brief description, i.e., outline the topics or major sub-topics, and indicate the principal texts to be used.

see above.
1. **STATEMENT OF PURPOSE** (How does the course fit into the department’s program?)

This course is designed to provide students with the opportunity for study of methodological and statistical issues raised in randomized clinical trials.

2. **EXPECTED ENROLMENT:**

Up to 15-20 students.

3. **DESCRIBE IN DETAIL THE METHOD OF PRESENTATION OF COURSE MATERIAL** (i.e., lectures, seminars):

Weekly handouts which include courses notes, readings from the literature, and problems. Each session will consist of a brief presentation by the tutor, followed by group discussion of the methodologic and statistical issues relevant to the weekly topic.

4. **DESCRIBE IN DETAIL THE METHOD OF EVALUATION:** (For 600-level course, indicate the Extra Work to be required of graduate students, i.e., exams, essays, etc.)

**Final Project**
- verbal presentation of your own project at the end of the term (1/3)
- write-up of your project (1/3)

**Weekly contributions to class (1/3)**
These are set session instructors and will vary from week to week but will include:
- short assignments for some weekly sessions
- participation in group discussions

The most significant components of the evaluation will be the presentation and write up of your term project; the presentation and write up will each be worth 1/3 (33%) of the total for the course. The remaining 1/3 will be based collectively on the other components (attendance at and participation in class, and weekly assignments that are set by session instructors).

5. **TO PREVENT OVERLAP, IS A COURSE IN THE SAME OR A RELATED AREA OFFERED IN ANOTHER DEPARTMENT?**
   If yes, please attach to this form any relevant correspondence with the other department(s).

No

6. **IF THE COURSE IS INTENDED PRIMARILY FOR STUDENTS OUTSIDE YOUR DEPARTMENT, DO YOU HAVE THE SUPPORT OF THE DEPARTMENT/PROGRAM CONCERNED?**

N/A

**PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Stephen Walter    Email: walter@mcmaster.ca    Extension: 22338

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

SGS/December 2006
**DEPARTMENT/PROGRAM**
HRM, School of Nursing, School of Rehabilitation Sciences

**COURSE TITLE**
Qualitative Research Methods for Analysing and Interpreting Data

<table>
<thead>
<tr>
<th>COURSE NUMBER</th>
<th>758</th>
</tr>
</thead>
<tbody>
<tr>
<td>COURSE CREDIT</td>
<td>FULL COURSE ( )</td>
</tr>
</tbody>
</table>

**INSTRUCTOR(S)**
Seanne Wilkins, Lynne Lohfeld

**PREREQUISITE(S)**
HRM/NUR 745 or its equivalent

**NATURE OF RECOMMENDATION** *(PLEASE CHECK APPROPRIATE BOX)*

<table>
<thead>
<tr>
<th>NEW COURSE</th>
<th>DATE TO BE OFFERED:</th>
<th>WAS THE PROPOSED COURSE OFFERED ON DEAN’S APPROVAL?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>IF YES, PROVIDE THE DATE:</td>
</tr>
</tbody>
</table>

**WILL THE COURSE BE CROSS-LISTED WITH ANOTHER DEPARTMENT?**
X  IF YES, ATTACH TO THIS FORM ANY RELEVANT CORRESPONDENCE WITH THE OTHER DEPARTMENT(S). *NOTE:* CROSS-LISTING OF COURSES REQUIRES APPROVAL FROM EACH DEPARTMENT AND FACULTY CONCERNED.

**CHANGE IN COURSE TITLE**

**CHANGE IN COURSE DESCRIPTION**
600-LEVEL COURSE *(Undergraduate course for graduate credit)*
*Please see #4 on page 2 of this form*

**CHANGE TO FULL COURSE**

**CHANGE TO HALF COURSE**

**CHANGE TO QUARTER COURSE**

**COURSE CANCELLATION**

**OTHER**

**EXPLAIN:**
Change in "Method of Evaluation"

**BRIEF DESCRIPTION FOR CALENDAR** - Provide a brief description *(maximum 6 lines)* to be included in the Graduate Calendar.
This intermediate-level course builds on prior knowledge about qualitative research approaches and their philosophical basis. The emphasis in this course will be on how the approaches affect data analysis and interpretation, as well as presenting findings in written and oral formats. The course is based on active involvement of learners through student-directed discussions and hands-on experiences, guidance and facilitation by graduate faculty with expertise in qualitative research, and interdisciplinary collaboration with faculty and classmates.

**CONTENT/RATIONALE** - Provide a brief description, i.e., outline the topics or major sub-topics, and indicate the principal texts to be used.
See Attached
1. **STATEMENT OF PURPOSE** (How does the course fit into the department’s program?)

There is a growing need to help graduate students in the Health Sciences gain the necessary skills to independently or collaboratively conduct qualitative research. This course builds on a successful model of interdisciplinary education in an introductory graduate course on qualitative research (HRM/NUR 745), and provides exposure to theory and practice in the analysis of qualitative data. It also is aimed at meeting an expressed need recognized by both graduate students and qualitatively trained Faculty in the Faculty of Health Sciences.

2. **EXPECTED ENROLMENT:**

   Based on the expressed interest in HRM 758, we expect to enrol 10-12 students from the Health Research Methods program, the School of Nursing and the School of Rehabilitation Science.

3. **DESCRIBE IN DETAIL THE METHOD OF PRESENTATION OF COURSE MATERIAL** (i.e., lectures, seminars):

   - Lectures and large-group presentations
   - Small-group discussions led by students assisted by faculty facilitators
   - In-class exercises
   - Guest lecturers and presenters

4. **DESCRIBE IN DETAIL THE METHOD OF EVALUATION:** (For 600-level course, indicate the Extra Work to be required of graduate students, i.e., exams, essays, etc.)

   Two papers (60% of final grade) based on secondary analysis of data provided to the class -- paper 1 (20%) reports on the research problem, question and methods; paper 2 (40%) is a writeup of the student's analysis, findings and interpretation; an oral presentation of material covered in papers 1 and 2 (25%); class participation and journaling (15%).

5. **TO PREVENT OVERLAP, IS A COURSE IN THE SAME OR A RELATED AREA OFFERED IN ANOTHER DEPARTMENT?**

   IF YES, PLEASE ATTACH TO THIS FORM ANY RELEVANT CORRESPONDENCE WITH THE OTHER DEPARTMENT(S).

   N/A

6. **IF THE COURSE IS INTENDED PRIMARILY FOR STUDENTS OUTSIDE YOUR DEPARTMENT, DO YOU HAVE THE SUPPORT OF THE DEPARTMENT/PROGRAM CONCERNED?**

   N/A

**PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Seanne Wilkins  
Email: swilkins@mcmaster.ca  
Extension: 27839

---

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

SGS/December 2006
## Recommendation for Change in Graduate Curriculum - For Change(s) Involving Courses

### Please Read the Following Notes Before Completing This Form:

1. This form must be completed for **ALL** course changes. 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: espiritum@mcmaster.ca).
3. A hard copy of this form must be signed by the department chair or graduate advisor and sent to the Assistant Secretary and SynApps System Administrator, School of Graduate Studies, GH-212.
4. 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/Program

MSc (OT) Program within the School of Rehabilitation Science

### Course Title

Transition to Practice: Professional Roles & Experiential Practicum VI

### Course Number

OT 738

### Course Credit

<table>
<thead>
<tr>
<th>Course Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL COURSE ( )</td>
</tr>
<tr>
<td>HALF COURSE (X)</td>
</tr>
<tr>
<td>QUARTER (MODULE) ( )</td>
</tr>
</tbody>
</table>

### Instructor(s)

Shaminder Dhillon & Sandra Moll

### Prerequisite(s)

Completion of Year 1, Term IV, and Term V MSc(OT)

### Nature of Recommendation (Please check appropriate box)

- NEW COURSE

### Date to Be Offered:

**Was the Proposed Course Offered on Dean’s Approval?**

If Yes, provide the date:

**Will the Course Be Cross-listed with Another Department?**

If Yes, attach to this form any relevant correspondence with the other department(s).

**Note:** Cross-listing of courses requires approval from each department and faculty concerned.

### Change in Course Title

Provide the current course title:

### Change in Course Description

600-Level Course (Undergraduate course for graduate credit)

*Please see #4 on page 2 of this form*

### Change to Full Course

### Change to Half Course

### Change to Quarter Course

### Course Cancellation

Provide the reason for course cancellation:

### Other

**X**

**Explain:** Change the weighting of student evaluations.

### Brief Description for Calendar

Provide a brief description (maximum 6 lines) to be included in the Graduate Calendar.

This half course is the third part of a series of three half courses with the emphasis in this term upon the complexities of contemporary practice. This practically-based half course will provide students with the opportunity to develop advanced practice skills within laboratory and real world situations. The focus of the skills labs will provide access to a broad spectrum of applied practical knowledge, whereas the placements in practice settings will focus more specifically upon areas relative to each student’s learning needs. The course coordinator will advise and approve all students’ learning plans, which will build upon and enhance those learning plans identified within the Inquiry and Integration course (CHS *737).

### Content/Rationale

Provide a brief description, i.e., outline the topics or major sub-topics, and indicate the principal texts to be used.
1. STATEMENT OF PURPOSE (How does the course fit into the department’s program?)

The course is integral in assisting student occupational therapists to develop clinical skills for entry into practice.

2. EXPECTED ENROLMENT:

Since this is a compulsory course in the MSc (OT) Program, all students are expected to enroll and complete the course (approximately 60).

3. DESCRIBE IN DETAIL THE METHOD OF PRESENTATION OF COURSE MATERIAL (i.e., lectures, seminars):

No change.

4. DESCRIBE IN DETAIL THE METHOD OF EVALUATION: (For 600-level course, indicate the Extra Work to be required of graduate students, i.e., exams, essays, etc.)

There is no change in the method of evaluation. Rather, in changing the weighting of assignments, there will be a greater emphasis placed on the students’ individual work.

The rationale for this course change is that currently half of each student's grade is determined through group work which concerns the faculty for a graduate level course. Thus, the assignments will remain the same but weighting will change as follows:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Previous Weighting</th>
<th>Proposed Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Assessment &amp; Learning Plan: Part 1</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Self-Assessment &amp; Learning Plan: Part 2</td>
<td>30%</td>
<td>40%</td>
</tr>
<tr>
<td>Student-Led Workshop (group)</td>
<td>50%</td>
<td>40%</td>
</tr>
<tr>
<td>individual Component of Workshop</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>

5. TO PREVENT OVERLAP, IS A COURSE IN THE SAME OR A RELATED AREA OFFERED IN ANOTHER DEPARTMENT? IF YES, PLEASE ATTACH TO THIS FORM ANY RELEVANT CORRESPONDENCE WITH THE OTHER DEPARTMENT(S).

No change.

6. IF THE COURSE IS INTENDED PRIMARILY FOR STUDENTS OUTSIDE YOUR DEPARTMENT, DO YOU HAVE THE SUPPORT OF THE DEPARTMENT/PROGRAM CONCERED?

Not applicable.

PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Shaminder Dhillon Email: sdhill@mcmaster.ca Extension: 27815

Department Chair or Graduate Advisor: ___________________________ Date: _______________________

(Signature)

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

SGS/November 2005
SCHOOL OF GRADUATE STUDIES
RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING COURSES

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1. This form must be completed for ALL course changes. 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: espiritua@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.

<table>
<thead>
<tr>
<th>DEPARTMENT/PROGRAM</th>
<th>School of Rehabilitation Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>COURSE TITLE</td>
<td>Musculoskeletal Health Assessment and Diagnostics for Advanced Practice Therapists</td>
</tr>
<tr>
<td>COURSE NUMBER</td>
<td>RS 711*</td>
</tr>
<tr>
<td>COURSE CREDIT</td>
<td>FULL COURSE ( )</td>
</tr>
<tr>
<td>INSTRUCTOR(S)</td>
<td>Linda Woodhouse, PT, Ph.D., Deborah Kennedy PT, MSc.</td>
</tr>
<tr>
<td>PREREQUISITE(S)</td>
<td>Admission to the Course Based Master's Program at McMaster, or permission of instructor</td>
</tr>
</tbody>
</table>

NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)

<table>
<thead>
<tr>
<th>NEW COURSE</th>
<th>DATE TO BE OFFERED</th>
<th>WAS THE PROPOSED COURSE OFFERED ON DEAN’S APPROVAL?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>IF YES, PROVIDE THE DATE:</td>
</tr>
</tbody>
</table>

WILL THE COURSE BE CROSS-LISTED WITH ANOTHER DEPARTMENT? IF YES, ATTACH TO THIS FORM ANY RELEVANT CORRESPONDENCE WITH THE OTHER DEPARTMENT(S). NOTE: CROSS-LISTING OF COURSES REQUIRES APPROVAL FROM EACH DEPARTMENT AND FACULTY CONCERNED.

CHANGE IN COURSE TITLE

CHANGE IN COURSE DESCRIPTION
600-LEVEL COURSE (Undergraduate course for graduate credit) Please see #4 on page 2 of this form

CHANGE TO FULL COURSE
CHANGE TO HALF COURSE
CHANGE TO QUARTER COURSE

COURSE CANCELLATION

OTHER X
EXPLAIN: The course is revised to offer the majority of the course online instead of the entire course being face-to-face requiring students travel to McMaster University. Also changes in evaluation to reflect new method of delivery.

BRIEF DESCRIPTION FOR CALENDAR - Provide a brief description (maximum 6 lines) to be included in the Graduate Calendar.
This course will introduce students to measurement properties of diagnostic evaluations using examples related to musculoskeletal disorders or diseases. In addition to an introduction to the basic concepts of radiology and laboratory testing, students will learn and practise performing a comprehensive musculoskeletal health assessment that includes biomechanical, physical and functional assessments of patients with musculoskeletal disorders or disease, particularly lower extremity osteoarthritis. Expert faculty from several disciplines will facilitate all sessions.

CONTENT/RATIONALE - Provide a brief description, i.e., outline the topics or major sub-topics, and indicate the principal texts to be used.
This course will cover the elements of a comprehensive musculoskeletal health assessment and introduces the basic concepts of radiology. Practitioners will gain the knowledge, confidence and skills required to perform a complete health assessment including biomechanical, physical and functional assessments of patients with musculoskeletal disorders or diseases, particularly osteoarthritis. Learners will gain an understanding of the interpretation of clinical and functional findings to determine the necessity for additional diagnostic evaluations (e.g. X-rays, EMGs, and diagnostic ultrasounds) and laboratory tests (blood and urine analyses). This course will prepare the practitioner in the use of medical directives such as ordering and interpreting x-rays and laboratory investigations for patients with musculoskeletal diseases. There is a focus on evidence-based clinical reasoning and the use and interpretation of objective measures to formulate a differential diagnosis, communicate clinical findings and/or the diagnosis, the prognosis and management (conservative and surgical) of patients with musculoskeletal conditions (primary focus on osteoarthritis of the lower extremities).
Principal Texts: Please see attached reference list.
1. **STATEMENT OF PURPOSE** (How does the course fit into the department’s program?)

There is currently no course on the use and evaluation of diagnostic measures and advanced clinical assessment of patients with musculoskeletal disorders or disease. There are currently new emerging advanced practice roles for rehabilitation practitioners, particularly in the area of musculoskeletal practice. Such roles demand not only an advanced clinical skill set, but also expertise in education, program development, critical appraisal, analytical, research and leadership skills. This course has been developed to meet the educational needs of rehabilitation professionals training for such advanced practice roles. This course is offered through the School of Rehabilitation Science at McMaster University, to students enrolled in the Course Based Masters in Rehabilitation Science. This course is also available, as an elective course, to graduate students enrolled in the Thesis Masters or Doctoral programs in Rehabilitation Science at McMaster.

2. **EXPECTED ENROLMENT:**

6-10 students per year

3. **DESCRIBE IN DETAIL THE METHOD OF PRESENTATION OF COURSE MATERIAL** (i.e., lectures, seminars):

The course will be offered 1-2 sessions per week over a 13 week period and is modular in format (total of 6 modules). This course will include 3 face-to-face sessions (at the beginning, middle and end of the course). The remaining sessions will be online - using both synchronous and asynchronous formats. This format will fit the needs of the learners (both local and distance education format) and the need of this course to address knowledge and critical appraisal skills as well as practical skills development with respect to managing patients with musculoskeletal disorders and diseases.

4. **DESCRIBE IN DETAIL THE METHOD OF EVALUATION:** (For 600-level course, indicate the **Extra Work** to be required of graduate students, i.e., exams, essays, etc.)

Evaluation will be based on:
- Oral presentation of the measurement properties of a diagnostic tool used to evaluate musculoskeletal disease – 20%
- Clinical performance examination – evaluation of ability to perform a thorough musculoskeletal clinical examination of a patient with osteoarthritis during clinical sessions - 20%
- Participation and oral presentations - discussion and interpretation of clinical cases within each module (total 30%)
- Written referral letter – 10%
- Development of a medical directive – 20%

5. **TO PREVENT OVERLAP, IS A COURSE IN THE SAME OR A RELATED AREA OFFERED IN ANOTHER DEPARTMENT? IF YES, PLEASE ATTACH TO THIS FORM ANY RELEVANT CORRESPONDENCE WITH THE OTHER DEPARTMENT(S).**

No. There is no overlap with other courses.

6. **IF THE COURSE IS INTENDED PRIMARILY FOR STUDENTS OUTSIDE YOUR DEPARTMENT, DO YOU HAVE THE SUPPORT OF THE DEPARTMENT/PROGRAM CONCERNED?**

N/A

**PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Seanne Wilkins   Email: swilkins@mcmaster.ca   Extension: 27839   Date:

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

SGS/December 2006
### Example of a Recommendation for Change in Graduate Curriculum - For Change(s) Involving Courses

#### Please Read the Following Notes Before Completing This Form:
1. This form must be completed for **ALL** course changes. 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/Program
- **School of Rehabilitation Science**

#### Course Title
- **Therapeutics for Advanced Practice Musculoskeletal Care**

#### Course Number
- **RS 712**

#### Course Credit
- **Full Course**
- **Half Course** (X)
- **Quarter (Module)**

#### Instructor(s)
- Linda Woodhouse, PT, Ph.D.

#### Prerequisite(s)
- Admission to the Course Based Master's Program at McMaster, or permission of instructor

#### Nature of Recommendation (Please Check Appropriate Box)

<table>
<thead>
<tr>
<th>New Course</th>
<th>Date to be Offered</th>
<th>Was the Proposed Course Offered on Dean’s Approval?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
<td></td>
<td>If Yes, Provide the Date:</td>
</tr>
</tbody>
</table>

**Will the Course Be Cross-listed with another Department?**
- **Yes**, Attach to this Form Any Relevant Correspondence with the Other Department(s).
- **Note**: Cross-listing of courses requires approval from each department and faculty concerned.

#### Change in Course Title
- Provide the Current Course Title:

#### Change in Course Description
- **600-Level Course** *(Undergraduate course for graduate credit)*
- Please see #4 on page 2 of this form

#### Change to Full Course
- **Change to Half Course**
- **Change to Quarter Course**

#### Course Cancellation
- Provide the Reason for Course Cancellation:

<table>
<thead>
<tr>
<th>Other</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>The course is revised to offer the majority of the course online instead of the entire course being face-to-face that required students travel to McMaster University. Evaluation changes to reflect change in new delivery method.</td>
</tr>
</tbody>
</table>

#### Brief Description for Calendar – Provide a brief description *(maximum 6 lines)* to be included in the Graduate Calendar.
This course will focus on the management of clients with musculoskeletal disorders. Students will gain an understanding of the basic principles of pharmacology, surgical approaches, advanced counseling and the ability to critically appraise and integrate clinical practice guidelines for the conservative management of clients with musculoskeletal disease, particularly osteoarthritis of the lower extremity. Expert faculty from several disciplines will facilitate all sessions.

#### Content/Rationale – Provide a brief description, i.e., outline the topics or major sub-topics, and indicate the principal texts to be used.
This course will introduce the concepts integral to an in-depth understanding of the therapeutic approaches to the management (both conservative and surgical) of patients with musculoskeletal disorders or disease. An understanding of pharmacology, surgical approaches, advanced counseling and complementary therapies predominantly related to common degenerative musculoskeletal diseases (e.g. osteoarthritis) will be covered. Learning will focus on:
- managing clients with chronic debilitating musculoskeletal disorders, diseases and functional deficits,
- further developing the ability to critically appraise and integrate current, relevant literature, clinical practice guidelines and research findings into clinical practice,
- applying pharmacological knowledge including: pharmacokinetics and pharmacodynamics when advising clients regarding prescriptions and over the counter medications, the application of topical and injectable formulations to manage osteoarthritis, and evaluating the effectiveness of interventions using objective outcome measures.

1. **STATEMENT OF PURPOSE** (How does the course fit into the department’s program?)
   
   There is currently no course on advanced clinical management of patients with musculoskeletal disorders or disease. There are currently new emerging advanced practice roles for rehabilitation practitioners, particularly in the area of musculoskeletal practice. Such roles demand not only an advanced clinical skill set, but also education, program development, critical appraisal, analytical, research and leadership skills. This course is offered through the School of Rehabilitation Science at McMaster University, to students enrolled in the Course Based Masters in Rehabilitation Science. This course is also available, as an elective course, to graduate students enrolled in the Thesis Masters or Doctoral programs in Rehabilitation Science at McMaster.

2. **EXPECTED ENROLMENT:**
   
   6-10 students per year

3. **DESCRIBE IN DETAIL THE METHOD OF PRESENTATION OF COURSE MATERIAL** (i.e., lectures, seminars):
   
   The course will be offered 1-2 sessions per week over a 13 week period and is modular in format (total of 4 modules). This course will include 2 face-to-face sessions (at the beginning and then close to the end of the course). The remaining sessions will be online - using both synchronous and asynchronous formats. This format will fit the needs of the learners (both local and distance education format) and the need of this course to address knowledge and critical appraisal skills as well as practical skills development with respect to managing patients with musculoskeletal disorders and diseases.

4. **DESCRIBE IN DETAIL THE METHOD OF EVALUATION:** (For 600-level course, indicate the Extra Work to be required of graduate students, i.e., exams, essays, etc.)
   
   Evaluation will be based on:
   - Presentation of a clinical practice guideline, or outcome measure used to evaluate change for patients with musculoskeletal disease (30%).
   - Students will analyze and present a clinical case (1-2 pages written 10%, and oral presentation 10%) on the medications used by a patient with a complicated medical history who presented for review at your clinic (pre op triage or post operative follow up care) (20%).
   - Participation (20%). Students will be expected to attend class prepared to participate in interactive discussions.
   - Final assignment (30)%: Students have choice of 3: treatment plan based on a patient; critical appraisal of complementary and alternative medicine approach to patient management; or a paper on 1 of a number of topics related to MSK care.

5. **TO PREVENT OVERLAP, IS A COURSE IN THE SAME OR A RELATED AREA OFFERED IN ANOTHER DEPARTMENT?**

   No. There is no overlap with other courses.

6. **IF THE COURSE IS INTENDED PRIMARILY FOR STUDENTS OUTSIDE YOUR DEPARTMENT, DO YOU HAVE THE SUPPORT OF THE DEPARTMENT/PROGRAM CONCERNED?**

   N/A

**PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Seanne Wilkins  Email: swilkins@mcmaster.ca  Extension: 27839  Date:

---

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

SGS/December 2006
SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING COURSES

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:

1. This form must be completed for ALL course changes. 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/PROGRAM: School of Rehabilitation Science

COURSE TITLE: Statistical Methods in Rehabilitation Science

COURSE NUMBER: 714*

COURSE CREDIT:
- FULL COURSE ( )
- HALF COURSE ( x )
- QUARTER (MODULE) ( )

INSTRUCTOR(S): Paul Stratford

PREREQUISITE(S): Admission to the Master in Rehabilitation Science or permission of instructor; ANTIREQUISITE HRM 702

NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX):

- NEW COURSE x

DATE TO BE OFFERED: September 2010

WAS THE PROPOSED COURSE OFFERED ON DEAN’S APPROVAL? Y

IF YES, PROVIDE THE DATE:

WILL THE COURSE BE CROSS-LISTED WITH ANOTHER DEPARTMENT? N

IF YES, ATTACH TO THIS FORM ANY RELEVANT CORRESPONDENCE WITH THE OTHER DEPARTMENT(S). NOTE: CROSS-LISTING OF COURSES REQUIRES APPROVAL FROM EACH DEPARTMENT AND FACULTY CONCERNED.

CHANGE IN COURSE TITLE: Provide the current course title:

CHANGE IN COURSE DESCRIPTION:
- 600-LEVEL COURSE (Undergraduate course for graduate credit) Please see #4 on page 2 of this form

CHANGE TO FULL COURSE
CHANGE TO HALF COURSE
CHANGE TO QUARTER COURSE

COURSE CANCELLATION: Provide the reason for course cancellation:

OTHER EXPLAIN:

BRIEF DESCRIPTION FOR CALENDAR - Provide a brief description (maximum 6 lines) to be included in the Graduate Calendar.

This course is designed to address basic statistical concepts and techniques that are applied frequently in rehabilitation research. The course covers graphical presentation of data, elementary probability, descriptive statistics, probability distributions (Normal, Binomial, Poisson, Hypergeometric), hypothesis testing and parameter estimation. Specific techniques covered include z-tests, t-tests, ANOVA, contingency table analysis, regression and correlation analyses. In addition to covering these statistical tests, this course also addresses how to effectively report statistical findings in publications.

CONTENT/RATIONALE - Provide a brief description, i.e., outline the topics or major sub-topics, and indicate the principal texts to be used.

Major course themes:
- Describe the assumptions associated with the tests covered in this course
- Select and perform the most appropriate statistical test based on the research question and data
- Interpret the findings from the applied statistical analyses
- Report the results effectively

Overview: Describing data Topics; Probability and distributions; Samples and Populations; Hypothesis testing and Parameter Estimation; Comparing 2 groups; Comparing more than 2 groups; Repeated Measures ANOVA; Simple regression and correlation; Multiple regression; Categorical data analysis; Logistic regression


Principal statistical software: PASW Statistics (formerly SPSS)
1. **STATEMENT OF PURPOSE** (How does the course fit into the department’s program?)

   The intent of this course is to provide students with a basic level understanding of data analyses. The concepts and applications covered in this course will provide a foundation to support data analyses required in subsequent courses and research.

2. **EXPECTED ENROLMENT:**

   10 students

3. **DESCRIBE IN DETAIL THE METHOD OF PRESENTATION OF COURSE MATERIAL** (i.e., lectures, seminars):

   This course is composed of 13 sessions which are spread out over a 13-week term. The major themes of this course will be addressed each week. The format for each class is as follows: Part 1. discussion of the problems assigned from the previous week (student centred): Part 2. Introduction to the concerns to be covered the following week (faculty centred and interactive).

4. **DESCRIBE IN DETAIL THE METHOD OF EVALUATION:** (For 600-level course, indicate the Extra Work to be required of graduate students, i.e., exams, essays, etc.)

   Evaluation will be based on:
   - Participation and participation in weekly sessions - 10%
   - Assignment 1 - 20%
   - Assignment 2 - 20%
   - Assignment 3 - 20%
   - Final examination 30%

5. **TO PREVENT OVERLAP, IS A COURSE IN THE SAME OR A RELATED AREA OFFERED IN ANOTHER DEPARTMENT?**
   IF YES, PLEASE ATTACH TO THIS FORM ANY RELEVANT CORRESPONDENCE WITH THE OTHER DEPARTMENT(S).

   A similar course is offered in the HRM program (HRM702), however that course has a greater emphasis on categorical data analysis.

6. **IF THE COURSE IS INTENDED PRIMARILY FOR STUDENTS OUTSIDE YOUR DEPARTMENT, DO YOU HAVE THE SUPPORT OF THE DEPARTMENT/PROGRAM CONCERNED?**

   N/A

**PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Paul Stratford  
Email: stratfor@mcmaster.ca  
Extension: 22523  
Date: February 18, 2010

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

SGS/December 2006
Overview
This course addresses basic statistical concepts and techniques that are applied frequently in rehabilitation research. The course covers graphical presentation of data, elementary probability, descriptive statistics, probability distributions (Normal, Binomial, Poisson, Hypergeometric), hypothesis testing and parameter estimation. Specific techniques covered include z-tests, t-tests, ANOVA, contingency table analysis, regression and correlation analyses. In addition to covering these statistical tests, this course also addresses how to effectively report statistical findings in publications.

Major Course Objectives
Upon completion of the course students will be able to:
- Describe the assumptions associated with the tests covered in this course
- Select and perform the most appropriate statistical test based on the research question and data
- Interpret the findings from the applied statistical analyses
- Report the results effectively

Format
The course combines lecture and problem-based formats. Each week there will be a data analysis assignment for discussion to help students better understand and apply the concepts.

Schedule
This course will be scheduled in the Fall term. It will be held once a week for 13 weeks. Each class will be 3 hours in length.

Evaluation
The course will be evaluated based on student’s attendance and participation (10%), three hand-in assignments (20% each), and an examination (30%). For each assignment a data-set will be given and students will be asked to use appropriate statistical techniques to analyze, interpret, and present the findings in a format suitable for publication (e.g., methods description of analysis, results, brief discussion). For each assignment the solution will be discussed in the tutorial group. The final examination will cover the content offered in this course.
## Weekly Schedule

<table>
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<tr>
<th>Week</th>
<th>Module</th>
<th>Topics</th>
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<tr>
<td>1</td>
<td>Introduction</td>
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<tr>
<td>2</td>
<td>Describing data</td>
<td>Levels of Measurement, descriptive statistics, graphs</td>
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<td></td>
<td>Probability and distributions</td>
<td>Binomial, Poisson, Normal distributions</td>
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<tr>
<td>3</td>
<td>Samples and Populations</td>
<td>sample statistics, population parameters, 1-sample comparisons, p-values</td>
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<tr>
<td>4</td>
<td>Hypothesis testing and Parameter Estimation</td>
<td>null &amp; alternate hypotheses, Type I &amp; II errors, power, confidence intervals, reporting results</td>
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<tr>
<td>5</td>
<td>Comparing 2 groups</td>
<td>t-distribution, assumptions associated with t-tests, t-tests (paired &amp; independent samples), Wilcoxon rank sum test, sample size calculation, reporting findings</td>
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<tr>
<td>6</td>
<td>Comparing more than 2: Oneway ANOVA</td>
<td>oneway anova, assumptions associated with oneway anova, multiple comparisons, Kruskal-Wallis test, sample size calculation, reporting findings</td>
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<tr>
<td>7</td>
<td>Repeated Measures ANOVA</td>
<td>comparing groups at multiple time-points, reliability analysis (intraclass correlation coefficient, standard error of measurement), assumptions associated with repeated measures anova, sample size calculation, reporting results</td>
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<tr>
<td>8</td>
<td>Simple regression and Correlation analyses</td>
<td>linear regression, assumptions of linear regression, confidence &amp; prediction bands, Pearson’s correlation coefficient, Spearman rank order correlation, hypothesis testing and parameter estimation, sample size calculation, reporting results</td>
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<tr>
<td>9</td>
<td>Multivariable regression</td>
<td>application of multiple continuous variables, application of continuous and categorical variables, concept of interaction, reporting results</td>
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<tr>
<td>10</td>
<td>Categorical analysis</td>
<td>Contingency table analysis, Chi-square distribution and test, McNemar’s test, Fisher’s exact test, sample size calculation for comparing proportions, reporting results</td>
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<tr>
<td>11</td>
<td>Logistic regression analysis</td>
<td>application of multiple continuous variables, application of continuous and categorical variables, concept of interaction (effect modification), reporting results</td>
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<tr>
<td>12</td>
<td>Examination</td>
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**Textbook**

**Other text resources**