



School of Graduate Studies

1280 Main Street West
Hamilton, Ontario, Canada
L8S 4M2

Phone 905.525.9140
Ext. 23679
Fax 905.521.0689
<http://www.mcmaster.ca/graduate>

March 2, 2010

To : Members of the Faculty of Business Graduate Curriculum and Policy Committee

From : Medy Espiritu *Medy Espiritu*
Assistant Secretary and SynApps System Administrator

The next meeting of the Faculty of Business Graduate Curriculum and Policy Committee will be held on **Thursday, March 4, 2010** at **1:00 p.m.** in **DSB-510**.

Listed below are the agenda items for discussion.

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

A G E N D A

- I. Master of Communications Management GMAT/GRE admissions requirement (*no material*)
- II. Global Health
 - Calendar copy of the Global Health program
 - New courses:
 - *701 – Global Health Foundations I
 - *702 – Global Health Foundations II
 - *710 – Learning Symposium/Field Orientation
 - 711 – Scholarly Paper
- III. Revised calendar copy – M.Sc. eHealth program
- IV. Other business

Global Health

The new and innovative Graduate Program in Global Health is an interdisciplinary, cross-cultural and interprofessional M.Sc. degree program. The program strives for synergy in global health, integrating education and research from the Faculty of Health Sciences, Faculty of Social Sciences, and DeGroote School of Business. It is designed to prepare students for the global workforce providing a solid foundation in global health issues, web-based learning and and experience in low-and middle-income countries.

Students will receive education in the major topics of global health ranging from globalization and management issues, to studies of disease and policy development. The M.Sc. is offered as either course-based or thesis-based depending on the goals of the student.

McMaster University has established an internationally collaborative learning experience with Maastricht University, The Netherlands. McMaster and Maastricht will be offering two core courses- Global Health Foundations I & II- online by faculty members at both universities. Students from both universities will also join together for the learning symposium/field placement (service learning) in Term 3.

Term 2 will provide students the opportunity to choose from one of the following three fields of the Global Health program: Globalization and Development, Global Health Management, and Global Diseases.

On completion of this Master's program, graduates will qualify for high-level positions with international health and development agencies.

Enquiries: 905 525-9140 Ext 22045

Fax: 905 522-5493

Email: hoorenm@mcmaster.ca

Website: http://fhs.mcmaster.ca/global_health_masters

Staff/ Fall 2010

PROFESSORS

Andrea Baumann, B.Sc.N. (Windsor), M.Sc.N. (Western), Ph.D. (Toronto)

Kevin Brazil, B.A., M.A. (Carleton), Ph.D. (Toronto)

Deborah Cook, M.D., M.Sc. (McMaster), F.R.C.P.(C)

Gordon Guyatt, B.Sc. (Toronto), M.D., M.Sc. (McMaster), F.R.C.P.(C)

Mark Loeb, B.Sc., M.D. (McGill), M.Sc. (McMaster)

Peter Szatmari, B.Sc., M.D., M.Sc. (McMaster)

Zhou Xing, M.D. (North Sichuan, PRC), M.Sc. (Tongji, PRC), Ph.D. (McMaster)

ASSOCIATE PROFESSORS

Jonathan Bramson, B.Sc., Ph.D. (McGill)

Padman Jayaratne, B.Sc. (Colombo, Sri Lanka), Ph.D. (Guelph)

Paul Krueger, B.Sc., M.Sc. (Waterloo), M.H.Sc., Ph.D. (Toronto)

John Lavis, M.D. (Queen's), M.Sc. (London School of Economics), Ph.D. (Harvard)

David Price, B.Sc., M.D. (British Columbia)

Ruta Valaitis, B.A., B.Sc.N. (Windsor), M.H.Sc. (McMaster), Ph.D. (Toronto)

Yonghong Wan, M.D., M.Sc. (Hubei Medical University)

ASSISTANT PROFESSOR

Susan Jack, B.Sc.N. (Alberta), Ph.D. (McMaster)

ASSOCIATE MEMBERS

Noori Akhtar-Danesh (Nursing)

Vishwanath Baba (Human Resources & Management)

Will Coleman (Political Science, Institute on Globalization and the Human Condition)

Mahshid Dehghan (Population Health Research Institute, Medicine)

Daniel Drache (Political Science, York University)/ Part-time

Forough Farrokhyar (Clinical Epidemiology & Biostatistics, Surgery)

Christopher Longo (Strategic Market Leadership & Health Services Management)

Geoffrey Norman (Clinical Epidemiology & Biostatistics)

Robert O'Brien (Political Science, Institute on Globalization and the Human Condition)

Tim O'Shea (General Internal Medicine, Medicine)

Tony Porter (Political Science, Institute on Globalization and the Human Condition)

Glen Randall (Strategic Market Leadership & Health Services Management)

Aaron Schat (Human Resources & Management)

Patricia Wakefield (Strategic Market Leadership & Health Services Management)

Jianping Xu (Biology)

Toru Yoshikawa (Strategic Market Leadership & Health Services Management)

FIELDS IN THE PROGRAM

The fields of study in the program are not mutually exclusive, students will choose from a wide spectrum of research interests that cross the boundaries that define the fields. To encourage this cross-fertilization, all students will take the core courses Global Health Foundations I and Global Health Foundations II that bridge the fields. They will also attend the required collaborative seminars that address a variety of issues in Global Health. In addition they will choose fields, electives and do scholarly projects in areas of special individual interest, to enable them to build upon and advance their knowledge of Global Health in a manner that will often cross field boundaries.

The M.Sc. program is designed so that students will meet the following core competencies:

- Develop an understanding of Global Health as a series of dynamic relationships and interrelated themes
- Gain a working knowledge of selected topics within one of the three fields in Global Health
 - Develop a specialized working knowledge of one of these fields
 - Be able to identify and extrapolate the macro and micro level themes of globalization to health outcomes
 - Understand the systemic inequalities that permeate the relationships of Global Health through Commerce, Globalization, and Power
 - Build an awareness of the new practices, instruments, insights, and perspectives needed to cope with the health challenges posed by globalization
- Develop the tools to critically analyze and measure the relationships which define the global embeddedness of health
- Understand and appreciate the changing roles and responsibilities of old and new actors in the global health field (citizens, governments, health professionals, international organizations, etc.)

- Use reflective practice as a critical tool for knowledge acquisition, personal and professional growth, and effective intercultural exchange

The three fields in the program are as follows:

a) Globalization and Development

Globalization focuses on cultural, political, social and economic globalizing processes in the contemporary era and how they impact economic development, health, healthcare, and education in underdeveloped and developing countries. These processes, often accelerated by information and communication technologies, have redefined in unequal ways how individuals and communities experience and view the world, and how they organize to change the world.

b) Global Health Management

Global Health Management introduces students to management and policy skills, including a fundamental understanding of the capacities needed to manage projects related to health, healthcare, economic development, and education.

c) Global Diseases

The Global Diseases field involves the study of endemic tropical diseases as well as other diseases that tend to afflict under-developed countries, including HIV/AIDS, tuberculosis, and cancer. A globalization topic that will be emphasized is the threat to public health from existing, new, and re-emerging diseases that may move almost with impunity across national borders through immigration, travel, and global trade. Chronic diseases that affect developed nations are also a threat to health in developing nations, and will be addressed as well.

Finally, students will be required to attend Global Health *710, a collaborative Learning Symposium/Field Orientation, that will feature seminars by experts in the field, student presentations on selected research topics, and (where feasible) field visits to sites that involve development activities in global health, relevant to the program.

Admission

Admission to the M.Sc. Global Health program requires an honours bachelor's degree with at least a B+ from an accredited university (equivalent to a McMaster 8.5 out of 12) in the final year in all courses in the discipline, or relating to the discipline, in which the applicant proposes to do graduate work. All students entering the program must have completed a university level course in statistical analysis with a minimum grade of B-. Students with no background in health may be required to complete a makeup course in health before entering the program. Finally, applicants must have a strong interest in one of the fields offered in the program.

Admission requirements include:

1. One official transcript of academic work completed to date at all post-secondary institutions attended, sent directly from the issuing institution(s). If the final transcript does not show that a completed degree has been conferred, an official copy of the diploma is also required.
2. Two academic letters of recommendation from instructors most familiar with the applicant's academic work, sent directly from the instructors.
3. A personal curriculum vitae (resume).
4. A written personal essay (submitted online within the application). The essay should explain why the applicant is seeking graduate education; describe how the applicant plans to benefit from the program; and finally, outlines the selected field of interest from

the three tracks offered in the program in order of preference; if no preference, please indicate (no more than 750 words).

5. An official copy of the applicant's TOEFL Test of English as a Foreign Language score or other evidence of competency in English must be submitted (if English is not the applicant's native language). A minimum TOEFL (iBT) score of 92 (550 on the paper-based TOEFL or 237 on the computer-based test) is required.

Degree Requirements

M.Sc. Degree

The general requirements for the M.Sc. Degree appear under the regulations for the Master's degrees near the beginning of this Calendar.

M.Sc. by Thesis

Requirements for thesis-based students include:

1. Completion of the program with at least a B- standing, a minimum of five graduate half courses which must include: GLOB HTH *701, GLOBALST *710, HRM *721, BUS C721, GLOBALST *702, and one additional half course from the selected field of interest decided by the student in conjunction with his/her supervisory committee which may be at the 600 level.
2. Successful completion of the learning symposium/field placement (GLOB HTH *710).
3. Completion of a thesis on an approved global health issue and defend the thesis at a final oral examination.

M.Sc. by Course Work

Requirements for the course-based M.Sc. degree include:

1. Completion of the program with at least a B- standing, a minimum of eight graduate half courses which must include the five required courses: GLOB HTH *701, GLOBALST *710, HRM *721, BUS C721, GLOB HTH *702; two courses from the selected field of interest and an additional course from the elective offerings.
2. Successful completion of the learning symposium/field placement (GLOB HTH *710).
3. Completion of a 15-20 page written scholarly paper on a topic approved by the student's supervisor (GLOB HTH 711).

Courses and Degree Requirements by Term

Required Term 1

GLOB HTH *701- Global Health Foundations I

This course addresses cross-sectional and interrelated features of the health problems, issues, and concerns in the circumstances or experiences of nations that transcend national boundaries, and that are best addressed by cooperative actions and solutions. The critical relationships among health, healthcare, education, economic development, and business management will be explored in detail. Ethical issues in global health are also addressed. Discussion and interaction among the participants is strongly encouraged. The course will also include several seminars from recognized researchers in global health and infectious diseases,

and from field workers familiar with the aspects of what graduates from this program are likely to encounter in their careers, accompanied by significant interaction and discussion.

GLOBALST *710 - Globalization: An Introduction

An introduction to major theories and debates in the field of globalization studies.

HRM *721 Fundamentals of Health Research and Evaluation Methods

The major components of research activities are covered, including concepts of health, formulation of research questions, literature reviews, study designs, selection of study populations, choice of measuring instruments, and study interpretation issues such as determination of causality and the effectiveness of clinical and community interventions.

BUS C721 - Health Policy Analysis

This course will examine the field of health policy analysis with particular emphasis on clinical, administrative and government policy. After establishing a framework by which to analyze policy – which will include consideration of stakeholders, pressure groups, values, institutions, and the media – various tools will be studied as means of formulating and evaluating policy. Techniques from business, political science, economics, sociology, epidemiology, and history will be used. Specific policy topics will be presented as illustrations of this management art.

Required Term 2

GLOB HTH *702 Global Health Foundations II

Program and project management skills are essential to every graduate from this program. This course introduces global health program and project management, and demonstrates their application using real cases from each of the three Global Health program fields. Interaction among, and contributions from students are strongly encouraged. The course will also include regular weekly seminars, presented by students and their supervisors or advisors, resulting from their studies of global health issues, and accompanied by significant interaction and discussion with other students, instructors, and supervisors.

Term 2 by Field

GLOBAL HEALTH MANAGEMENT (Term 2)

BUS C711 - Health Economics and Evaluation

This course will examine the application of economic principles to policy-relevant questions in the area of health and healthcare. Topics will include applied health economics, economic correlates to health, demand and supply of healthcare and insurance, healthcare system financing, alternative payment schemes, economic regulation of the pharmaceutical industry, cost-effectiveness and cost-benefit analyses, QALY's, and means by which to improve value-for-money in the health sector.

**BUS C741 – Health Care Marketing
(Same as BUS M722)**

This course provides an in-depth understanding of the key concepts of marketing and their application to the rapidly changing public and private health care environment. Students build practical skills: in analyzing marketing problems in for-profit and not-for profit health care organizations in Canadian, U.S. and other international settings; and, in developing programs

and strategies applying marketing tools and principles (such as pricing, promotion, products/services, consumer behavior, branding, segmentation, social marketing and health promotion). Students also increase their appreciation of the role of data collection, analysis, interpretation, and management in health care marketing decisions. The course consists of case discussion, lectures, guest speakers, readings (cases, articles, textbook), and practical field experience whereby student teams undertake marketing consulting projects in local health care organizations.

BUS I731 - International Business

This course examines the environmental analysis of international business and surveys a number of managerial issues related to international operations. Macro strategic decision making and alliance formation are studied as are functional decision making in the areas of finance, accounting, marketing, human resources, sourcing, and production. The course acquaints students with available databases and their use, and requires a research project to be undertaken.

GLOBAL DISEASES (Term 2)

Biology 6P03 - Medical Microbiology

Microbial infectious diseases of humans: ecology, evolution, epidemiology, immunity, pathogenesis and the treatments of these diseases.

Medical Sciences *717 - Vaccines and Vaccine Immunology

Vaccines and vaccine immunology have become an important sub discipline of modern biomedical practice and research. It becomes increasingly important to both prevention and treatment of infectious diseases, cancer, autoimmune diseases and allergic diseases. This course is designed to provide graduate students with the basic concepts of current human vaccination programs, methods used to developing various forms of new vaccines, and vaccine immunology.

GLOBALIZATION AND DEVELOPMENT (Term 2)

GLOBALST *705 - Global Public Policy

(Same as Political Science *705)

An examination of policy-making at global institutions and the relationships with other scales of policy formation.

GLOBALST *712 - International Trade and Economic Development

This course studies the economic impacts of world trade on developing countries.

GLOBALST *777 – Global Governance

(Same as Political Science *777)

This course examines the institutions and processes of global governance. It considers different theoretical approaches to understanding rule creation and maintenance on a global scale. Approaches and issues that will be examined include: neoliberal and neorealist regime theory; critical theory approaches; international law, the role of corporations and private authority and the activity of global civil society.

ELECTIVES

BUS C722 – Management of Population Health

The Management of Population Health takes a meta-approach to health issues focusing on strategies to improve health and well-being while controlling costs. Several frameworks will be critiqued and concepts studied will include, but will not be limited to, the correlates of the health of different populations, the stages of the life cycle, the burden of illness for society, contagions and public health, the congruence between evidence and policy, prevention, community action, and the development of students' critical appraisal skills.

HRM *770 - Mixed Methods Research Designs for Health Services and Policy Research / (Same as Nursing *770)

This course introduces students to the major concepts and issues involved in mixed methods approaches to tackle important questions in the field of health services and policy. *LearnLink* is used as the mode of instruction. A framework for thinking about mixed methods will be developed that provides guidance to decision-making about when and how to use mixed methods and models to study health services and policy problems. The course will provide students with knowledge of the current controversies and major challenges in the use of mixed methods and models of research. Students are expected to design a mixed method study as part of the course and critically evaluate the design options chosen by a classmate.

Required Spring Term

GLOB HTH *710 - Learning Symposium and Field Orientation

All students in the Master of Science in Global Health Program are required to complete a Global Health Learning Symposium/Field Orientation, working in an approved public or private organization engaged in the prevention of disease, health promotion, health service delivery, health policymaking, or research in a global context. The placement provides the opportunity to become familiar with the kinds of organizations that put into practice the theory, concepts, and methods taught in the Master's program. This course will take place through field visits, small group discussions and the presentations of the conclusions from project work undertaken during the placement. After 3 weeks, students will also present their research findings, in order to receive feedback from peers.

Summer Term (May-August)

Both M.Sc. by Course-Work and M.Sc. by Thesis

Students are expected to be well along in the development of a research proposal, including a literature review, by the end of the winter term. Indeed, thesis students may have already completed their proposals and begun their research projects, since their course load in the winter term is limited to one required and one elective course. Upon return to McMaster from the symposium, course-work option students will proceed to complete a major research paper, relevant to the field they selected, during the remainder of the summer. This may involve the analysis of secondary empirical data or it may involve a model or conceptual design based on a literature review undertaken prior to the workshop. The scholarly study will be submitted as the student's Master's scholarly paper and may in some cases be suitable for publication in the academic literature.

GH 711- Scholarly Paper (For Students in the M.Sc. by Course-work Option)

This full course is designed as an opportunity for graduate course-based M.Sc. students to demonstrate in writing, their ability to integrate ideas that reflect current knowledge in Global

Health. 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 15 to 20 pages, excluding references and appendices. The paper does not involve the collection or analysis of primary data or the conduct of research with subjects. It is a scholarly essay, not a thesis. It is critical to the course-based M.Sc. students to demonstrate mastery of the theoretical and methodological understandings that have been acquired during the course work.

Thesis Option

Students taking the thesis option will spend the remainder of the summer and, normally, the fall term (in certain cases extending into the following winter term) completing their research and theses, which may involve the collection and analysis of field data or developing major conceptual works based on the literature.



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		Global Health (Health Sciences, Social Sciences, DeGroot School of Business)		
COURSE TITLE		Global Health Foundations I		
COURSE NUMBER	*701	COURSE CREDIT		
		FULL COURSE ()	HALF COURSE (x)	QUARTER (MODULE) ()
INSTRUCTOR(S)		Andrea Baumann, Tim O'Shea, Anne Wong		
PREREQUISITE(S)		none		

NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)

NEW COURSE	<input checked="" type="checkbox"/>	DATE TO BE OFFERED: September 2010	WAS THE PROPOSED COURSE OFFERED ON DEAN'S APPROVAL? IF YES, PROVIDE THE DATE:
-------------------	-------------------------------------	--	---

WILL THE COURSE BE **CROSS-LISTED** WITH ANOTHER DEPARTMENT? **NO** 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: New Course developed for the Global Health program.		

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

This course addresses cross-sectional and interrelated features of the health problems, issues, and concerns in the circumstances or experiences of nations that transcend national boundaries, and that are best addressed by cooperative actions and solutions. The critical relationships among health, healthcare, education, economic development, and business management will be explored in detail. Ethical issues in global health are also addressed. Discussion and interaction among the participants is strongly encouraged. The course will also include several seminars from recognized researchers in global health, chronic and infectious diseases, and from field workers familiar with the aspects of what graduates from this program are likely to encounter in their careers, accompanied by significant interaction and discussion.

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 provides students with a theoretical underpinning in the the social science and sciences of global health and illness, learned through modules/courses, applied to policies that are used as a vehicle to appreciating concepts that affect Global Health. Through this course students will become familiar with existing health policies of non-governmental organizations (NGO's) and (local and international) governmental institutions, learn to use their theorteical knoweldge to assess existing policies, and to comprehend global- social determinants of health.

<p>1. STATEMENT OF PURPOSE (How does the course fit into the department's program?)</p> <p>In Foundations I students will investigate policies from real, national and international governmental and non-governmental organizations and assess whether these policies have an adequate answer to the challenges of globalization. Given the huge complexity of ongoing processes, perfect policies will not be found. However, we will identify positive examples, reflect on the question of how policies can be reshaped to address the complicated consequences of globalization and elaborate on the opportunities that globalization can offer to improve health. This will facilitate the development of innovative policy and managerial instruments necessary to operate effectively both in the global arena as well as at the intersection of local and global interests anywhere in the world.</p>
<p>2. EXPECTED ENROLMENT:</p> <p>25-50</p>
<p>3. DESCRIBE IN DETAIL THE METHOD OF PRESENTATION OF COURSE MATERIAL (i.e., lectures, seminars):</p> <p>The course incorporates a variety of resources to aid the student in meeting the learning objectives. Lectures will be delivered online every second week and will include seminars from international guest lecturers. Group work will commence in the off-week to provide time to develop their projects. The groups are to study weekly assignment questions to direct their focus. At the end of the course groups will present their projects. Students will work in groups of 4-6 students from interdisciplinary backgrounds (business, health science, social science) on inter-continental teams including students from Maastricht University with students from McMaster University.</p>
<p>4. DESCRIBE IN DETAIL THE METHOD OF EVALUATION: (For 600-level course, indicate the <u>Extra Work</u> to be required of graduate students, i.e., exams, essays, etc.)</p> <p>Evaluation will include examination of active/constructive participation in group work (20%), group presentation (35%), and assessment of the course paper (45%).</p>
<p>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).</p> <p>No</p>
<p>6. IF THE COURSE IS INTENDED PRIMARILY FOR STUDENTS OUTSIDE YOUR DEPARTMENT, DO YOU HAVE THE SUPPORT OF THE DEPARTMENT/PROGRAM CONCERNED?</p> <p>Yes</p>
<p>PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:</p> <p>Name: Andrea Baumann Email: baumanna@mcmaster.ca Extension: 22581 Date: February 3, 2010</p>

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

GLOB HTH *701
Global Health Foundations I
Course Outline
McMaster University

GLOB HTH *701 Global Health Foundations I

Course Outline

McMaster University

COURSE OVERVIEW

This course provides students with a theoretical underpinning in the social science and sciences of global health and illness, learned through modules/courses, applied to policies that are used as a vehicle to appreciating concepts that affect Global Health. Through this course students will become familiar with existing health policies of NGO's and (local-international) governmental institutions, learn to use their theoretical knowledge to assess existing policies, to reflect on political, social and ethical implications of those policies and to comprehend global social determinants of health

INTRODUCTION

Globalization is a gradual and eventual process. However, due to trade, migration, travelling, and the rise of broadly accessible communication and information technologies, exchanges on the global level have intensified during the last decades. As a result, a new level and speed of global interconnectedness appears, which is a force in shaping the health of populations around the world (Koplan et al., 2009).

Processes of globalization are affecting health in several ways. Increased trade, travelling and migration, allow infectious diseases to spread much easier around the world. At the same time, the spread of lifestyles traditionally associated with western cultures have led to an increase in non-communicable conditions such as cardiovascular disease. Globalization patterns, however, not only increase health risks. Knowledge and prevention strategies are also spreading easier around the world as a consequence of communication and information technology. These technologies make people less dependent on traditional national governments and health professionals, and provide more people with access to health promoting sources and enable them to become self informed. Furthermore, trade and migration improve economic position of some and marginalise others.

Not only health risks are changed by processes of globalization. The same processes are responsible for major shifts in the opportunities to intervene and effectively fight these health risks. Again, the impacts of globalization are multidirectional, both facilitating as well as complicating policies and measures to adequately address health

(related) problems. Global health problems go beyond the scope of traditional actors and strategies that are based on national boundaries.

Consequently, the meaning and the functions of the traditional nation state - and of national identity - are changing. Simultaneously the boundaries between local and global are becoming less distinct.

Developing an adequate response to the disappearance of traditional boundaries is a tremendous challenge. Poverty, disease and disease control should become the concerns and the responsibilities of all, and donor-recipient hierarchies need to be replaced by global networks of partners collaborating on an equal basis. New arrangements, new types of institutions and new forms of collaborative governance are needed to facilitate a new method of grasping global health. The goal of which is to effectively link global, national, regional and local, public and private actors from all parts of the world into networks, alliances and consortia for global wellbeing and health.

AIM OF FOUNDATIONS I

In Foundations I students will investigate policies from real, national and international governmental and non governmental organizations and assess whether these policies have an adequate answer to the challenges of globalization. Given the huge complexity of ongoing processes, perfect policies will not be found. However, we will identify positive examples, reflect on the question of how policies can be reshaped to address the complicated consequences of globalization and elaborate on the opportunities that globalization can offer to improve health. This will facilitate the development of innovative policy and managerial instruments necessary to operate effectively both in the global arena as well as at the intersection of local and global interests anywhere in the world.

OBJECTIVES

- By this course students will learn how to address global health issues by analyzing real life policy documents
- Be able to critically appraise (global) health policy by integrating knowledge from a range of health and social science courses, be able to identify global actors of major health issues and be aware of the context in which they operate
- Be able to identify and handle paradigmatic differences in global health approaches (Rights, Business, Epidemiological etc.)
- Be knowledgeable of current global issues and their social determinants of health (i.e. environmental)
- Be able to function in multidisciplinary/multicultural teams or contexts
- Be able to communicate the results of the analysis of a global health issue to an audience of peers

LEARNING OUTCOMES

Upon completion of this course students will be able to complete the following key tasks:

- 1) Be able to identify, address, and critically appraise global health issues.
- 2) Be knowledgeable in current global health issues and obtain the ability to communicate those ideas to peers.
- 3) Be able to identify and address paradigmatic differences in global health approaches and function in multidisciplinary/multicultural contexts.

RESOURCES

The course incorporates a variety of different resources to aid you in meeting the learning objectives. These include:

1. Physical space. Small group meeting rooms are available seven days per week in the library and on the third floor of MDCL. Rooms may be booked through Sonya (MDCL 3308) or simply used if vacant.
2. Electronic Space. The course and program will use an electronic bulletin board system known as Learnlink built on First Class Client software. The system allows for collaborative group work (private and public), systematic knowledge construction, self and peer evaluation around knowledge acquisition and group process. Training will be provided at the outset.
3. Elluminate software for lectures, discussion and peer-peer interaction between McMaster and Maastricht students and faculty. Training will be provided.
4. Lecture space to examine core concepts. These are scheduled and the schedule is posted.
5. Specific core readings as appropriate to concept development.
6. The library and specific web resources
7. Each other. This is a critical resource. We know with certainty that we all learn best and retain concepts longer when we have to learn and teach. Students will be assigned to groups. There will be a common 'help' space for all.

FORMAT

Lectures will be given every second week to allow time for groups to develop their projects in the off week. The groups are to study weekly assignment questions to direct their focus. At the end of the course groups will present their projects.

Week 1: Lecture 1. Introduction to Global Health

- Objectives:**
- Course Overview
 - Introduction and testing of Elluminate
 - Formation of intercontinental groups & explore list of policy examples
 - Study introductory literature and concepts on global health
 - Explanation of assignment and introduction to policy analysis

Readings:

- Koplan, J. P. et al. (2009). Towards a common definition of global health. The Lancet, vol. 373, 1993-95.

Activities: Individual preparation for group work: study texts on policy analysis

Group work: students will meet to discuss group dynamics and brainstorm on global aspects of the selected health policy problem

Speaker(s): Dr. Andrea Baumann Associate Vice-President, Faculty of Health Sciences International Health, McMaster University, Canada

Dr. Tim O'Shea, Clinical Scholar, Medicine, McMaster University, Canada

Week 2: Lecture 2. History, Definitions, and Concepts

- Objectives:**
- Understand the historical context in which Global Health developed
 - Asses the intricacies of how health is conceptualized in policy
 - Learn major concepts and language of global health
 - Review and critically analyze a policy statement

Assignment Question 1: Identify problem definition in the policy document, Address how is health/disease conceptualized and operationalized in your policy document and what factors are addressed.

Readings:

- Davis, P. (2004). Problems, politics, and processes: public health sciences and policy in developed countries. Oxford Textbook of Public Health, 4th ed
- Rocheftort, D. A., Cobb, R. W. (1994). Problem Definition: An Emerging Perspective. University Press of Kansas

Activities: Individual preparation for group work:

- read selected policy document
- study introductory literature on global health (definitions, concepts, etc.)

Group work: use the concepts from mentioned above to discuss assignment question

Speaker: Dr. Anja Krumeich, Assistant Professor, Department of Ethics, Ethics and Society, Maastricht University, The Netherlands

Week 3: Group Work

Activities: Individual preparation for group work: continue preparation from week two

Group Work: continue discussion on question 1

Individual: complete written concept for paragraph in individual paper (question 1)

Week 4: Lecture 3. Influences of Modern Technology

Objectives: a) appreciate the benevolent and malevolent advancements made by modern technologies and their relationships with health

Assignment Question 2: How do increased possibilities for communication (i.e. internet, mobile phone) and mobility (i.e. travelling, migration) affect the health issue, and what challenges and risks they address for solutions? Are these items properly disclosed in the policy document?

Activities: Individual preparation for group work:

- scan/refresh literature of course/modules for relevant concepts
- scan/refresh suggested literature on communication/mobility and global health
- search for additional literature if necessary

Group work: use the concepts from above mentioned classes (lecture and literature)

Speaker: First part: Prof. dr. Valentina Mazzucato, Maastricht University
Second part: Dr. Norman Archer, Professor, School of Business and Senior Consultant to the Global health Program, McMaster University, Canada

Week 5: Group Work

Activities: Individual preparation for group work:

- scan/ refresh literature of courses/modules for relevant concepts
- scan/ read suggested literature on communication and mobility and global health
- search for additional literature if necessary

Group work: continue discussion on question 2.

Individual: write concept for paragraph in individual endpaper Question 2
discussion of progress with tutor

Week 6: Lecture 4. Global Economics and Global Health

Objectives: a) Gain understanding of the complexities of a globalizing economy
b) Appreciate social hardships of victims of global economic instability
c) Learn to identify the mechanisms by which global economy influences health
d) Be able to critically appraise policy on these aspects

Assignment Question 3: How do international economic trends and relations affect the (global) health problem? Identify risks and challenges. Are these issues adequately addressed?

Activities: Individual preparation for group work:

- scan/refresh literature of courses/modules for relevant concepts
- scan/read suggested literature on economy and global health
- search for additional literature if necessary

Group work: use the concepts from above mentioned classes

Speaker(s): Lesley Doyal, University of Bristol, UK
Alan Whiteside, University of Kwazulu Natal, South Africa
Nana Poku, University of Southampton, UK

Week 7: Group Work

Activities: Individual preparation for group work:

- scan/ refresh literature of courses/modules for relevant concepts
- scan/ read suggested literature on communication and mobility and global health
- search for additional literature if necessary

Group work: continue discussion on question 3.

Individual: write concept for paragraph in individual paper(question 3).

Week 8: Lecture 5. Respect for Cultural and Moral Values

Objectives: a) Develop an understanding for the tensions between local traditions versus global values

b) Develop understanding for practical circumstances: influence of material and infrastructural circumstances in which (cultural) norms are embedded and that are influenced by economic and financial situation.

Assignment Question 4: Does the policy adequately take cultural and moral variety (regional, international) and practical circumstances into consideration?

Activities: Individual preparation for group work:

- scan/ refresh literature of courses/modules for relevant concepts
- scan/ read suggested literature on cultural and moral variety and practical circumstances and global health
- search for additional literature if necessary

Group work: use the concepts from above mentioned classes (lecture and literature) to discuss question 4.

Speaker: Dr. Agnes Meershoek, Department of Health, Ethics and Society, Maastricht University, The Netherlands

Week 9: Group Work

Activities: Individual preparation for group work:

- scan/ refresh literature of courses/modules for relevant concepts
- scan/ read suggested literature on cultural and moral variety and practical circumstances and global health
- search for additional literature if necessary

Group work: continue discussion on question 4.

Individual: write concept for paragraph in individual paper(question 4).

Discussion of progress with tutor.

Week 10: Lecture 6. Power relations, Social (in)Justice and Global Health

- Objectives:** a) Understand the relation between (political) power relations, social justice and health
b) Learn of interactions between politics and the economy and vice versa
c) Be able to critically appraise policy on these aspects

Assignment Question 5: Does the policy adequately deal with political and power relations and social justice?

Activities: Individual preparation for group work:

- scan/ refresh literature of courses/modules for relevant concepts
- scan/ read suggested literature on global political and power relations, social justice and global health
- search for additional literature if necessary

Group work: use the concepts from above mentioned classes (lecture and literature) to discuss question 5.

Discussion of progress with tutor

Speaker: Prof Dr Pim Martens or dr. Maud Huynen, Maastricht University

Week 11: Group Work

Activities: Individual preparation for group work:

- scan/ refresh literature of courses/modules for relevant concepts
- scan/ read suggested literature on global political and power relations, social justice and global health
- search for additional literature if necessary

Group work:

- continue discussion on question 5.
- prepare an overarching presentation on the results of your group work

Individually:

- write a concept for paragraph in individual endpaper on question 5
- integrate concept paragraphs in an overarching INDIVIDUAL end paper

Time allotted for Group Presentations

Week 12: Group Presentations

Activities: *Group presentations (5 groups)*

Individually: continue integration concept paragraphs in an overarching INDIVIDUAL end paper (include recommendations for discussion on group presentation)

Week 13: Group Presentations

Activities: *Group presentations (5 hours)*

Individually: continue integration concept paragraphs in an overarching INDIVIDUAL end paper (include recommendations for discussion on group presentation)

- *Final Paper Submission*

Student Evaluation

Summary of Global Health Policy Cases

1. US Stem Cell Research Policy:
In the United States the scientific, moral and ethical dimensions of stem cell research are heavily debated in science, politics and society. In a global perspective this political economic and social landscape gives rise to various international dynamics and shapes global relations and local lives.
US National Institutes of Health Guidelines on Human Stem Cell Research: http://stemcells.nih.gov/policy/2009guidelines.htm
2. Global Production and Transport of Generic HIV Treatment:
The global production of generic HIV medication has lowered the price of these products by more than 90%, and thus greatly increased availability. Nevertheless, in the global political economy the production, distribution and sale of generic ARVs remains complicated.
WTO Declaration on the TRIPS agreement and public health: http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_trips_e.htm
3. China's H1N1 Quarantine Policy:
Following the 2005 SARS outbreak China received considerable critique for its lack of effective actions. Now, in 2009 China is again receiving much critique regarding the country's health policies, only this time the international community objects China's strict H1N1 policies.
WHO. (2007). Ethical considerations in developing a public health response to pandemic influenza: http://www.who.int/csr/resources/publications/WHO_CDS_EPR_GIP_2007_2c.pdf
4. PharmAccess' introduction of (private) health insurance funds in African countries:
PharmAccess's mission is to improve access to quality basic health care including HIV/AIDS treatment and care in sub-Saharan Africa, through building sustainable health systems. PharmAccess introduces a new approach, which advocates a different organization of the healthcare delivery and contributes to the building of sustainable health systems and a sustainable health care economy.
PharmAccess (2007): http://www.pharmaccess.org/RunScript.asp?Page=270&p=ASP/Pg270.asp
5. Heineken's HIV/AIDS Policy, the contribution of a private company:
Heineken International launched its HIV/AIDS-HAART Program in Rwanda and Burundi on the 1st of September 2001. Since September 2001 Heineken has been making HAART available to local employees and their dependents in Africa, in collaboration with the NGO PharmAccess.
PharmAccess and Heineken (2007): http://www.pharmaccess.org/FileLib/Heineken%20broch%2024-7%20(2).pdf
5.a) An ILO code of practice on HIV/AIDS and the world of work:
The objective of the ILO code is to provide a set of guidelines to address the HIV/AIDS epidemic in the world of work and within the framework of the promotion of decent work. The guidelines cover the following key areas of action: (a) prevention of HIV/AIDS; (b) management and mitigation of the impact of HIV/AIDS on the world of work; (c) care and support of workers infected and affected by HIV/AIDS; (d) elimination of stigma and discrimination on the basis of real or perceived HIV status.
International Labour Organization (2001): http://www.ilo.org/public/english/protection/trav/aids/code/languages/hiv_a4_e.pdf
6. UNICEF's policy on maternal and newborn health:
<i>The State of the World's Children 2009</i> examines the current state of maternal and neonatal health, explores the fundamentals of a supportive environment for mothers and newborns, and outlines ways to strengthen efforts in support of primary health care. The report highlights the importance of establishing a continuum of maternal and newborn care framework and the imperative of strengthening health systems and working together.
Unicef (2009) The state of the world's children. Maternal and newborn health. Executive summary. (www.unicef.org/publications)

7. The Carter Center's malaria program
The following is the first summary of the proceedings of the Carter Center's Malaria Control Program. In 2006, at the invitation of the Ethiopian Ministry of Health, The Carter Center joined Ethiopia's national effort to provide protection to all 50 million Ethiopians at-risk for malaria through an ambitious plan to distribute long lasting insecticidal nets throughout all malaria affected areas by the end of 2007.
The Carter Center (2008): http://www.cartercenter.org/resources/pdfs/news/health_publications/malaria/malaria_program_summary.pdf
8. WHO policy malaria control:
The World malaria report 2008 describes the global distribution of cases and deaths, how WHO-recommended control strategies have been adopted and implemented in endemic countries, sources of funding for malaria control, and recent evidence that prevention and treatment can alleviate the burden of disease.
WHO (2005): http://apps.who.int/gb/ebwha/pdf_files/WHA58/WHA58_2-en.pdf
9. International Tobacco Control:
The WHO Framework Convention on Tobacco Control (FCTC) was the first treaty designed and produced by the WHO. The measure was adopted 21 May 2003 and entered into force on 27 February 2005
WHO. (2009) http://www.who.int/tobacco/framework/final_text/en/
10. Management of the River Jordan:
Jordan is a semi arid country in the Middle East with very limited freshwater resources. Needs already outstrip supply and the population and industry continue to grow.
MWI. (2009): http://www.mwi.gov.jo/English/MWI/Pages/default.aspx
11. Indonesian Financial Restructuring:
The IMF and WTO have financial guidance packages for states to help alleviate their debt. However, these restructuring plans sometimes drastically change state landscapes socially, commercially, politically, and these changes have adverse effects on health.
IMF. (2000) http://imf.org/external/pubs/ft/op/op178/index.htm

Academic Integrity:

Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at http://www.mcmaster.ca/senate/academic/ac_integrity.htm

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained. For this course, it is recommended that all work be appropriately referenced using APA 5th Edition Manual.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

EVALUATION MEASURES

1. Active/Constructive Participation in Group Work (20 %)
2. Group Presentation (35 %)
3. Course Paper (45 %)

SUGGESTED READINGS

Database

OVID SP Global Health Database. Wolters Kluwer Health. <http://ovidsp.ovid.com>

Articles

Al-Jayyous, O., R., & Shatanawi I, M. R. (1995). An analysis of future water policies in Jordan using decision support systems. *Water Resources Development*, 11 (3). No. 3.

Bettcher, D., & Lee, K. (2002). Globalization and public health. *Journal of Epidemiology and Community Health*, 56(1), 8-17.

Blackwell, B., & Times, T. W. (2007, August 30). Poor diet factor in child deaths: Low-cost solutions proposed. *The Washington Times*.

Blouin, C., Chopra, C. & van der Hoeven, R. (2009). *Trade and social determinants of health*. Available at; http://www.adler.edu/UserFiles/File/Trade_and_the_social_determinants_of_health.pdf

Calder, S. (2009). China quarantines school groups. Available from, <http://news.bbc.co.uk/2/hi/asia-pacific/8157188.stm>

Damstra, T., Page, S. W., Herrman, J. L., & Meredith, T. (2002). Persistent organic pollutants: Potential health effects? *Journal of Epidemiology and Community Health*, 56(11), 824-825.

Dickins, A. (2008). *The international political economy of regenerative medicine: Challenges for/from emerging economies*. London: Palgrave Macmillan.

Fane, G., & McLeod, R., H. (2001). *Banking collapse and restructuring in Indonesia, 1997-2001*. Available at: <http://rspas.anu.edu.au/economics/publish/papers/wp2001/2001-10%20Fane-McLeod%20banking.pdf>

- Genuis, S. J. (2005). Nutritional transition: A determinant of global health. *Journal of Epidemiology and Community Health*, 59(8), 615-617.
- Grunfeld, L. (1997). *Jordan River dispute. Inventory of conflict and the environment (ICE – case studies)*. Available at: <http://www1.american.edu/ted/ice/jordan.htm>
- Hornby, L. (2009). *China credits quarantine for containing H1N1*. Available at: <http://www.reuters.com/article/africaCrisis/idUSPEK260410>
- Halliburton, M. (2009). Drug resistance, patent resistance: Indian pharmaceuticals and the impact of a new patent regime. *Global Public Health*, 4(6), 515-527.
- International Monetary Fund. (2000). *IMF completes first review of Indonesia under its extended arrangement*. Available at: <http://www.imf.org/external/np/sec/nb/2000/NB0038.HTM>
- International Development Research Centre (2009). *IDRC homepage and Tobacco Control*. Available at: http://www.idrc.ca/en/ev-1-201-1-DO_TOPIC.html
- Jackson, S. (2009, March 16). Politics behind green reporting. *The Australian*, pp. 33.
- Joseph, L. (2008). *Shipments seizure: India's drug makers may avoid EU route*. Available at: <http://www.livemint.com/euroute.htm>
- Kickbusch, I. (2004). From charity to rights: Proposal for five action areas of global health. *Journal of Epidemiology and Community Health*, 58(8), 630-631.
- Kivimaki, M., Ferrie, J. E., Head, J., Shipley, M. J., Vahtera, J., & Marmot, M. G. (2004). Organizational justice and change in justice as predictors of employee health: The Whitehall II study. *Journal of Epidemiology and Community Health*, 58(11), 931-937.
- Kliot, N., Shmueli, D., Shamir, U. (2001). Institutions for management of transboundary water recourses: Their nature, characteristics and shortcomings. *Water Policy*, 3(3), 229-255.
- Koplan, J. P., Bond, C., Merson, M. H., Srinath Reddy, K., Rodriguez, M. H., Sewankambo, N. K., & Wasserheit, J. N. (2008). *Towards a common definition of global health*. Available at: <http://www.cfhi.org/web/fckeditor/uploaded/File/campaigns/Toward%20a%20Definition%20of%20GH%20June%202009PracticalGlobal%20PublicHealth.pdf>
- Labonte, R. (2004). Social Inclusion/exclusion: dancing the dialectic. *Health Promotion International*, 19(1).

- Linnan, D., K. (1999). *Indonesian bankruptcy policy and reform: Reconciling efficiency and economic nationalism*. Available at: <http://www.iseas.edu.sg/trends995.pdf>
- Mackenbach, J. P. (2007). Global environmental change and human health: A public health research agenda. *Journal of Epidemiology and Community Health*, 61(2), 92-94.
- Marmot, M., & Friel, S. (2008). Global health equity: Evidence for action on the social determinants of health. *Journal of Epidemiology and Community Health*, 62(12), 1095-1097.
- McCarthy, M., Biddulph, J. P., Utley, M., Ferguson, J., & Gallivan, S. (2002). A health impact assessment model for environmental changes attributable to development projects. *Journal of Epidemiology and Community Health*, 56(8), 611-616.
- McNeil, D. G., & Lafraniere, S. (2009). *China presses quarantine against flu*. Available at: <http://www.nytimes.com/2009/07/28/health/28quar.html>
- Melo-Martín, I (2009). *Human dignity in international policy documents: a useful criterion for public policy?* Available at: <http://www3.interscience.wiley.com/cgi-bin/fulltext/122499294/PDFSTART>
- Nelson, M. (2009). Are hospitals an export industry?: Empirical evidence from five lagging regions. *Economic Development Quarterly*, 23(3), 242-253.
- Oldroyd, J., Burns, C., Lucas, P., Haikerwal, A., & Waters, E. (2008). The effectiveness of nutrition interventions on dietary outcomes by relative social disadvantage: A systematic review. *Journal of Epidemiology and Community Health*, 62(7), 573-579.
- Patten, S. N. (1897). Over-nutrition and its social consequences. *The Annals of the American Academy of Political and Social Science*, 10(1), 33-53.
- Pandeya, R (2009). *India, Brazil to take on EU over regulation*. Available at: <http://www.livemint.com/2009/01/14220926/Dr-Reddy8217s-consignment-o.html>
- Ruger, J. P., & Kim, H. (2006). Global health inequalities: An international comparison. *Journal of Epidemiology and Community Health*, 60(11), 928-936.
- Salter, B., Cooper, M., Dickins, A., & Cardo, V. (2007) Stem cell science in India: emerging economies and the politics of globalisation. *Regenerative Medicine*, 2: 75-89.
- Schellekens, O., Lindner, M., Lange, J. & Van der Gaag, J. (2008) A New Paradigm for Increased Access to Healthcare in Africa. *ICF-FT essay competition*.

- Stone, R (2009). Inside China's Swine Flu Quarantine System. *Science*
Available at: <http://blogs.sciencemag.org/scienceinsider/2009/07/inside-chinas-s.html>
- Smith, K. R., Corvalan, C. F., & Kjellstrom, T. (1999). How much global ill health is attributable to environmental factors? *Epidemiology*, 10(5), 573-584.
- The Royal Hashemite Court. (2006) *Jordan's Water Shortage*. Available at: http://www.kinghussein.gov.jo/geo_env4.html.
- Unicef (2009) *The state of the world's children. Maternal and newborn health. Executive summary*. Available at: www.unicef.org/publications
- Van der Borght, S., Rinke de Wit, T., Janssen, V., Schim van der Loeff, M.F., Rijckborst, H. Lange, J.M.A. (2006) HAART for the HIV-infected employees of large companies in Africa, *The lancet*, 368 (9534) 5
- Water Authority of Jordan. (2006). *Irrigation Water Policy*. Available at <http://www.waj.gov.jo/English/polices/polices.htm>
- WHO. (2007). *Ethical considerations in developing a public health response to pandemic influenza*. Available at: http://www.who.int/csr/resources/publications/WHO_CDS_EPR_GIP_2007_2c.pdf
- WHO .(1992). Multisectoral Collaboration on WHO's Programme on Tobacco or Health. *WHA45.20*
- WHO. (1995). An International Strategy for Tobacco Control. *WHA48.11*
- WHO. (1999). Report of the First Meeting of the Working Group. *A/FCTC/WG1/7*
- WHO. (2000). Tobacco Free Initiative: Report by the Director-General. *A53/13*.
- WHO. (2000). Global Strategy for the Prevention and Control of Noncommunicable Diseases: Report by the Director-General. *A53/14*
- WHO. (2001). Framework Convention on Tobacco Control. *WHA53.16*.
- WHO. (2006). The First Session of the Conference of the Parties to the WHO Framework Convention on Tobacco Control. Available at: www.who.int/tobacco/fctc/cop/en.
- World Bank. (1999) *Curbing the Epidemic: Governments and the Economics of Tobacco Control*. Available at: <http://www1.worldbank.org/tobacco/reports.htm>

WTO. (2001). *Declaration on the TRIPS agreement and public health*. Available at:
http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_trips_e.htm

WTO. (2002) *Indonesia Economic Report*. Available at:
www.wto.org/english/tratop_e/tpr_e/s117-1_e.doc

Books

Amer, K. C., Boer, B., Brook, M, C., Adeel, Z., Clusener-Godt, M., Saleh, W. (2006) *Policy Perspectives for Ecosystem and Water Management in the Arabian Peninsula*. The United Nations University.

Beach, C.M., Green, A.G., and Reitz, J.G., (2008) *Canadian Immigration Policy for the 21st Century*. Kingston: John Deutsch Institute for the Study of Economic Policy.

Birn, A-E., Holtz, T.H., Pillay, Y. (2009) *Textbook of International Health. Global Health in a Dynamic World, 3rd edition*.

Butler, R. (2007). *Global Health and Global Aging*. San Francisco: Jossey-Bass
Davies, A.M., Gunn, S.W.A., Mansourian, P.B., Piel, A. Sayers, B. McA. (2005) *Understanding the Global Dimensions of Health*. New York: Springer Science and Business Media, INC.

Fisher, M.A., Markle, W.H., Smego R.A Jr. (2007) *Understanding Global Health*. New York: McGraw Hill

Holtz, C. (2008). *Global Health Care; Issues and Policies*. Mississauga: Jones and Bartlett Publishers.

Joint Learning Initiative. (2004). *Human Resources for Health: Overcoming the Crisis*. Washington DC: Communications Development Incorporated

Labonte, R. Laverack, G. (2008) *Health Promotion in Action: From Local to Global Empowerment*. Great Britain: Palgrave Macmillan Publishers

Labonte R, Packer C, Runnels V, and Schrecker T. (2009) *Globalization and Health*. Routledge Pathways Evidence and Policy.

MacDonald, T. (2007). *The Global Human Right to Health: Dream or Possibility*. Great Britain: Radcliffe Publishing Ltd

WHO. (2008). *The World Health Report 2008. Primary Health Care: Now More Than Ever*. Switzerland: WHO Press.



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		Global Health (Health Sciences, Social Sciences, DeGroot School of Business)		
COURSE TITLE		Global Health Foundations II		
COURSE NUMBER	*702	COURSE CREDIT		
		FULL COURSE ()	HALF COURSE (x)	QUARTER (MODULE) ()
INSTRUCTOR(S)		Andrea Baumann, Tim O'Shea, Anne Wong		
PREREQUISITE(S)		GLOB HTH *701, GLOBALST *710, HRM *721, BUS C721		

NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)

NEW COURSE	<input checked="" type="checkbox"/>	DATE TO BE OFFERED: September 2010	WAS THE PROPOSED COURSE OFFERED ON DEAN'S APPROVAL? IF YES, PROVIDE THE DATE:
-------------------	-------------------------------------	--	---

WILL THE COURSE BE **CROSS-LISTED** WITH ANOTHER DEPARTMENT? NO 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: New Course developed for the Global Health program.		

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

Program and project management skills are essential to every graduate from this program. This course introduces global health program and project management, and demonstrates their application using real cases from each of the three Global Health program fields. Interaction among, and contributions from students are strongly encouraged. The course will also include regular weekly seminars, presented by students and their supervisors or advisors, resulting from their studies of global health issues, and accompanied by significant interaction and discussion with other students, instructors, and supervisors.

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

In Foundations I the 'real world' cases consist of (international) governmental and non governmental policies. Foundations II will concentrate on health interventions. Furthermore, by analysing the problem definition of the policies, and assessing whether global health aspects of the problem were adequately addressed, the focus in Foundations I was primarily on the content of these policies. In foundations II the scope will be broadened to the implementation processes. During Foundations II students will develop or evaluate a real world intervention and investigate whether responsiveness and accountability are incorporated in the intervention design (in case of an evaluation) or incorporate responsiveness and accountability in their own design. Through this course students will deepen their insights in existing health policies of NGO's and (local- international) governmental institutions, learn to use their theoretical knowledge to develop and assess 'real' interventions, learn to reflect on political, social and ethical implications of these policies and to reflect on their theoretical knowledge.

1. STATEMENT OF PURPOSE (How does the course fit into the department's program?)

The purpose of Foundations II is to apply the knowledge and skills acquired through the modules/policy. The students will study examples of existing global health initiatives. They will learn and apply aspects of organization, coordination, finances and evaluation methods to a design and leadership of a global health project. To develop, improve or evaluate a responsive intervention for a global health issue. As in Foundations I, students will work in project groups of 4-6 students, each group must include at least one student from each of the two universities. The project groups will complete an intervention design or an evaluation of an existing intervention. Students will contact non-governmental organizations (NGO's) for an assignment or intervention project to evaluate. The final analysis will be presented in a group presentation during a plenary closing seminar and in individual papers. Contact persons of the involved NGO's will be invited to comment on the designs/ evaluations, if possible, during the plenary closing seminar.

2. EXPECTED ENROLMENT:

25-50

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

The course incorporates a variety of resources to aid the student in meeting the learning objectives. Lectures will be delivered online every second week and will include seminars from international guest lecturers. Students will work in groups of 4-6 students from varying backgrounds (business, health science, social science) on inter-continental teams including students from Maastricht University and McMaster University. The project groups will design, improve or evaluate a global health intervention, that will be provided by NGO's. Students can choose from suggestions of the staff or suggest a real life intervention themselves. The students will compose project groups themselves, facilitated by a group discussion site to advertize and discuss ideas.

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 include examination of e-summary of group learning (two submissions) (20%), evaluation of peer group presentation (20%), group presentation from peers (20%) (Instructor will assign grade including input from students), presentation skills/content of presentation (40%)

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?

Yes

PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Andrea Baumann Email: baumann@mcmaster.ca Extension: 22581 Date: February 3, 2010

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

GLOB HTH *702
Global Health Foundations II
Course Outline
McMaster University

GLOB HTH *702 Global Health Foundations II

Course Outline

McMaster University

COURSE DESCRIPTION

The purpose of Foundations II is to apply the knowledge and skills acquired through the modules/courses, seminars and Foundations I theories, when designing a real-life initiative/policy. The student will study examples of existing global health initiatives. They will learn and apply aspects of organization, coordination, finances and evaluation methods to a design and leadership of a global health project.

In designing this course, we have been cognizant of the need to provide opportunities to develop knowledge, skills and more comfort with uncertainty. This follows from complexity science but may be best captured by a paper attached to this outline; Coping with Complexity; educating for capability (Fraser and Greenhalgh, BMJ 323;799-803, (2001).

OVERVIEW

The module gives students the opportunity to apply the theoretical grounding obtained in the modules and the policy analysis in Foundations I to a 'real world' initiative for a global health issue. Students will be challenged to demonstrate their understanding of philosophical, conceptual and operational issues including the role of research and evaluation in addressing global health issues. They will take into account a range of disciplines and approaches.

LEARNING OUTCOMES

- Describe major initiatives/policies/projects presently operating in the global health field
- Attain a greater understanding in the design and management and evaluation of global health initiatives.
- Be able to describe a variety of evaluation/research models used to study global health initiatives.
- Apply theories, policies and global health issues to contribute an academically rigorous paper to the Learning Symposium

OBJECTIVES

At the end of the module students should:

- Be able to apply theories of health and illness and analytical tools learnt during the modules to an initiative/policy/project concerning a particular global health issue
- Have insight into global transformation and changing forms of leadership, management and institutional arrangements
- Demonstrate the ability to formulate judgments regarding new forms of leadership, governance, co-operation, competition and global practices
- Be able to integrate evidence and knowledge from different contexts, at the local and global scale, from private, public and civil society sectors and at the intersection of global processes
- Be able to communicate conclusions of the case study to an audience of peers
- Have obtained sufficient knowledge and insight of theories, policies and global health issues to contribute an academically rigorous paper to the Learning Symposium

Resources

The course incorporates a variety of different resources to aid you in meeting the learning objectives. These include:

1. Physical space. Small group meeting rooms are available seven days per week in the library and on the third floor of MDCL. Rooms may be booked or simply used if vacant.
2. Electronic Space. The course and program will use an electronic bulletin board system known as Learnlink built on First Class Client software. The system allows for collaborative group work (private and public), systematic knowledge construction, self and peer evaluation around knowledge acquisition and group process. Training will be provided at the outset.
3. Elluminate software for lectures, discussion and peer-peer interaction between McMaster and Maastricht students and faculty. Training will be provided.
4. Introductions to real world exemplars (cases)
5. Specific core readings as appropriate to concept development. Concepts form the three tracks.
6. The library and specific web resources (<http://globalhealthedu.org/modules>)
7. Each other. This is a critical resource. We know with certainty that we all learn best and retain concepts longer when we have to learn and teach. Students will be assigned to groups. There will be a common 'help' space for all.
8. Faculty members in all three tracks of the global health program.

Topics

Students will identify a 'real world' global health issue and be required to design an intervention/initiative (either a project or program). Each of the topics will assist students in completing the case study. Students will begin with a brief introduction to project management, in order to provide a common starting point for all students.

GROUP WORK

Working Groups will be formed at the outset. Each group of five students will include one student from each of the three tracks of global health. All three tracks need to be represented in a group in order to satisfy the explicit learning outcomes (above). Each group will be assigned a faculty member supervisor who will act to facilitate learning by examining the group process and knowledge using rubrics which can satisfy the objectives. Groups will be provided with electronic working space which we will all monitor.

Groups will select one exemplar (case) to work with throughout the term. Formal class time will be scheduled for convenience but the expectation is that groups are meeting often and regularly. Each week one member of the group (in rotation) will be required to submit an e-report detailing group learning. Minimally, this should identify the questions the group has asked, the concepts examined, the resources employed, and executive summaries of the learning. These summaries will be evaluated as one 'individual' component of the course.

At the end of the course, each group will be prepared to present a thirty to forty minute public presentation of the case and learning with respect to the learning outcomes. One group member, chosen randomly will present the material. All five group members will then field questions from the other groups, faculty and other attendees. **The presentations will be advertised widely and will be open to attendance by any members of the McMaster and Maastricht communities.**

The role of the faculty member/facilitator is to guide groups and to help identify knowledge gaps. They will monitor and evaluate weekly summaries. They will attend group meetings only by invitation.

List of possible Non Governmental Organizations (NGO) for study

1) Doctors Without Borders

- Doctors Without Borders / Médecins Sans Frontières (MSF) is an international medical humanitarian organization working in more than 60 countries to assist people whose survival is threatened by violence, neglect, or catastrophe.

www.msf.ca
doctorswithoutborders.org

2) Unicef

- Unicef believes that nurturing and caring for children are the cornerstones of human progress. Unicef was created with this purpose in mind – to work with others to overcome the obstacles that poverty, violence, disease and discrimination place in a child's path. Together, we believe that we can advance the cause of humanity.

<http://www.unicef.org>

3) Bill and Melinda Gates Foundation

- Guided by the belief that every life has equal value, the Bill & Melinda Gates Foundation works to help all people lead healthy, productive lives. In developing countries, we focus on improving people's health and giving them the chance to lift themselves out of hunger and extreme poverty.

<http://www.gatesfoundation.org/Pages/home.aspx>

4) WANGO

- The World Association of Non-Governmental Organizations is a global organization whose mission is to serve its member organizations, strengthen and encourage the non-governmental sector as a whole, increase public understanding of the non-governmental community, and provide the mechanism and support needed for NGOs to connect, partner, and multiply their contributions to solve humanity's basic problems.

<http://www.wango.org/>

5) Cross Cultural Solutions

- CCSs' vision is of a world where people value cultures different from their own, are aware of global issues, and are empowered to effect positive change. Their mission is to operate volunteer programs around the world in partnership with sustainable community initiatives, bringing people together to work side-by-side while sharing perspectives and fostering cultural understanding. CCS is an international not-for-profit organization with no political or religious affiliations

<http://www.crossculturalsolutions.org/>

6) Fair Trade Original

- FTO shares a vision of a world in which justice and sustainable development are at the heart of trade structures and practices so that everyone, through their work, can maintain a decent and dignified livelihood and develop their full potential. The Foundation's mission is to work with businesses, community groups and individuals to improve the trading position of producer organisations in the South and to deliver sustainable livelihoods for farmers, workers and their communities

<http://www.fairtrade.org.uk/>

7) WHO

- WHO is the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends.

<http://www.who.int/en/>

8) Oxfam

- Oxfam works directly with communities and we seek to influence the powerful to ensure that poor people can improve their lives and livelihoods and have a say in decisions that affect them. Working with more than 3,000 local partner organizations, we work with people living in poverty striving to exercise their human rights, assert their dignity as full citizens and take control of their lives.

<http://www.oxfam.org/>

9) Global Health Council

- The Global Health Council is the world's largest membership alliance dedicated to saving lives by improving health throughout the world. Our diverse membership is comprised of health-care professionals and organizations that include NGOs, foundations, corporations, government agencies and academic institutions that work to ensure global health for all.

<http://www.globalhealth.org/>

10) The International Red Cross and Red Crescent Movement

- The International Red Cross and Red Crescent Movement is the world's largest humanitarian network. The Movement is neutral and impartial, and provides protection and assistance to people affected by disasters and conflicts. Our mission is to improve the lives of vulnerable people by mobilizing the power of humanity. Vulnerable people are those who are at greatest risk from situations that threaten their survival, or their capacity to live with an acceptable level of social and economic security and human dignity. Often, these are victims of natural disasters, poverty brought about by socio-economic crises, refugees, and victims of health emergencies.

<http://www.ifrc.org/>

STUDENT EVALUATION

E-Summary of Group Learning (two submissions)	20%
Evaluation of Peer Group Presentation	20%
Group Presentation (Instructor will assign grade including input from students)	20%
Presentation skills/content of presentation	40%

There are three evaluated components examined from multiple perspectives; details, appropriate rubrics and auto-submit forms will be posted in the course electronic space.

Academic Integrity:

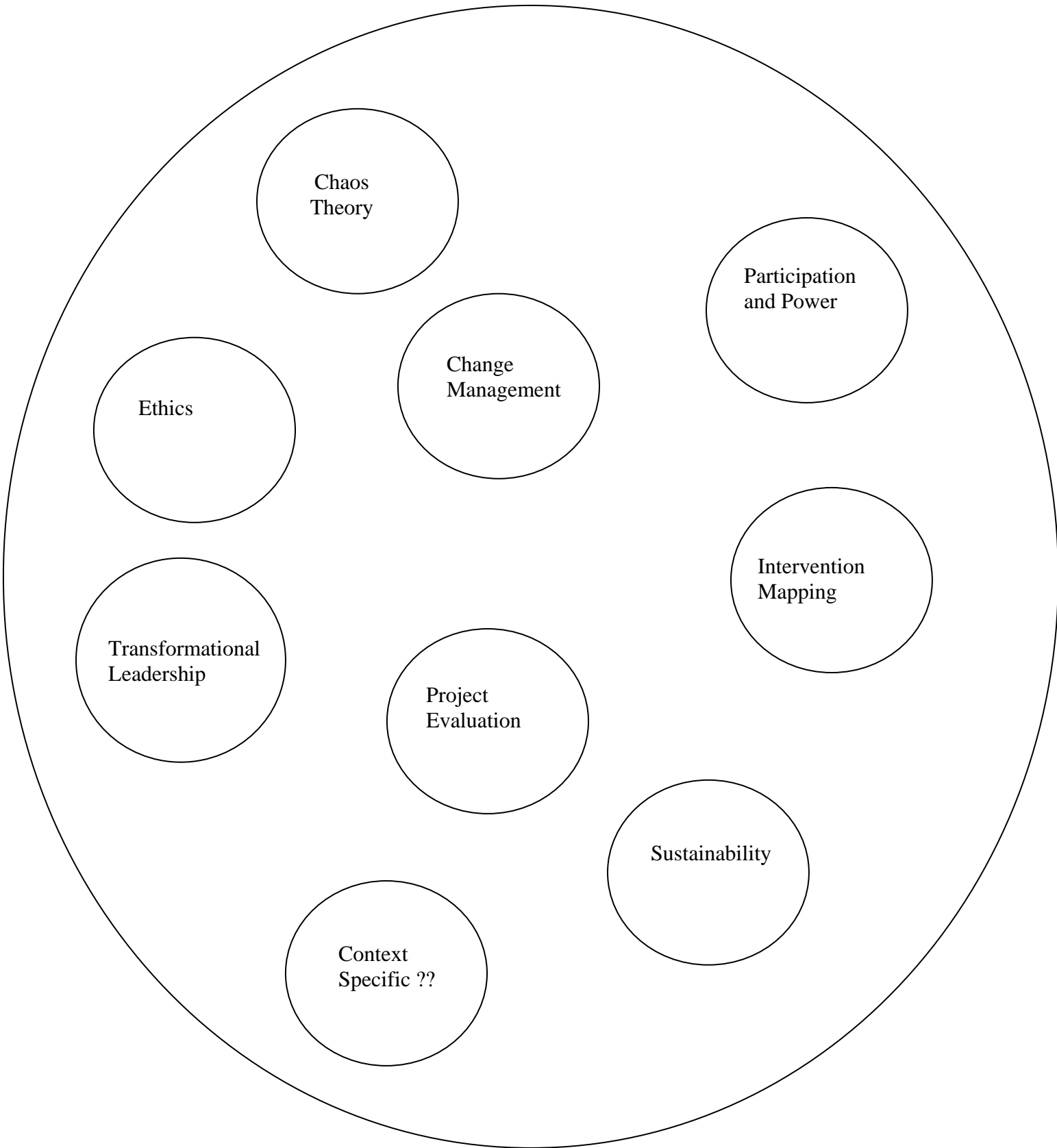
Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at http://www.mcmaster.ca/senate/academic/ac_integrity.htm

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained. For this course, it is recommended that all work be appropriately referenced using APA 5th Edition Manual.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

Foundations II Domains



Interpreting the science

Although the chances of predicting a preventable fracture by bone densitometry may be small, it is also important that two thirds of patients can be reassured that fracture is less likely and therefore long term treatment is not needed. That there is overuse, overdiagnosis, and overtreatment for osteoporosis is due not to bone densitometry or to epidemiological reports but to various factors, including pressure of some competing pharmaceutical companies and the uncritical medical society relying more on technical instrumentation than on clinical skills and reasoning. As Wilkin and Devendra assert above, effectiveness is critical in daily clinical practice.—Jan Dequeker, Frank P Luyten

Competing interests: None declared.

- 1 Dequeker J. Osteoporotic fractures, ageing, and the bone density T-score. *Clin Rheumatol* 2000;19:171-3.
- 2 Huopio J, Kröger H, Honkanen R, Saarikoski S, Alhava E. Risk factors for perimenopausal fractures: a prospective study. *Osteoporos Int* 2000;11:219-27.
- 3 O'Neill TW, Marsden D, Silman AJ. Differences in the characteristics of responders and non-responders in a prevalence survey of vertebral osteoporosis. European Vertebral Osteoporosis Study Group. *Osteoporos Int* 1995;5:327-34.
- 4 Genant HK, Cooper C, Poor G, Reid I, Ehrlich G, Kanis J, Nordin BE, et al. Interim report and recommendations of the World Health Organization task-force for osteoporosis. *Osteoporos Int* 1999;10:259-64.

- 5 Jones G, Nguyen T, Sambrook PN, Eisman JA. Thiazide diuretics and fractures: can meta-analysis help? *J Bone Miner Res* 1995;10:106-11.
- 6 Dawson-Hughes B, Harris SS, Krall EA, Dallal GE. Effect of calcium and vitamin D supplementation on bone density in men and women 65 years of age or older. *N Engl J Med* 1997;337:670-6.
- 7 Chapuy MC, Arlot ME, Delmas PD, Meunier PJ. Effect of calcium and cholecalciferol treatment for three years on hip fractures in elderly women. *BMJ* 1994;308:1081-2.
- 8 Faulkner KG. Bone matters: are density increases necessary to reduce fracture risk? *J Bone Miner Res* 2000;15:183-7.
- 9 Hildebrand T, Laib A, Müller R, Dequeker J, Rüeggsegger P. Direct three-dimensional morphometry analysis of human cancellous bone: microstructural data from spine, femur, iliac crest, and calcaneus. *J Bone Miner Res* 1999;14:1167-74.
- 10 Aerssens J, Van Audekercke R, Talalaj M, Geusens P, Bramm E, Dequeker J. Effect of 1 α -vitamin D₃ and estrogen therapy on cortical bone mechanical properties in the ovariectomized rat model. *Endocrinol* 1996;137:1358-64.
- 11 Mashiba T, Hirano T, Turner CH, Forwood MR, Johnston CC, Burr DB. Suppressed bone turnover by bisphosphonates increases microdamage accumulation and reduces some biomechanical properties in dog rib. *J Bone Miner Res* 2000;15:613-20.
- 12 Aerssens J, Boonen S, Lowet G, Dequeker J. Interspecies differences in bone composition, density and quality. Potential implications for in vivo bone research. *Endocrinol* 1998;139:663-70.
- 13 Dequeker J, Nijs J, Verstraeten A, Geusens P, Gevers G. Genetic determinants of bone mineral content at the spine and radius: a twin study. *Bone* 1987;8:207-9.
- 14 De Laet CE, van Hout BA, Burger H, Hofman A, Pols HA. Bone density and risk of hip fracture in men and women: cross sectional analysis. *BMJ* 1997;315:221-5.
- 15 Cummings SR, Black DM, Thompson DE, Applegate WB, Barrett-Connor E, Musliner TA, et al. Effect of alendronate on risk of fracture in women with low bone density but without vertebral fractures. *JAMA* 1998;280:2077-82.

(Accepted 2 July 2001)

Complexity science

Coping with complexity: educating for capability

Sarah W Fraser, Trisha Greenhalgh

Recent high profile scandals in the United Kingdom have highlighted the changing values by which the National Health Service is judged.¹ The public expects, and the government has promised to deliver, a health service that is ever safer, constantly up to date, and focused on patients' changing needs. Successful health services in the 21st century must aim not merely for change, improvement, and response, but for changeability, improvability, and responsiveness.

Educators are therefore challenged to enable not just competence, but also capability (box). Capability ensures that the delivery of health care keeps up with its ever changing context. Education providers must offer an environment and process that enables individuals to develop sustainable abilities appropriate for a continuously evolving organisation. Recent announcements in the United Kingdom of a "university for the NHS,"² a "national leadership programme,"³ and "workforce confederations"⁴ raise the question of what kind of education and training will help the NHS to deliver its goals

Capability is more than competence

Competence—what individuals know or are able to do in terms of knowledge, skills, attitude

Capability—extent to which individuals can adapt to change, generate new knowledge, and continue to improve their performance

Summary points

Traditional education and training largely focuses on enhancing competence (knowledge, skills, and attitudes)

In today's complex world, we must educate not merely for competence, but for capability (the ability to adapt to change, generate new knowledge, and continuously improve performance)

Capability is enhanced through feedback on performance, the challenge of unfamiliar contexts, and the use of non-linear methods such as story telling and small group, problem based learning

Education for capability must focus on process (supporting learners to construct their own learning goals, receive feedback, reflect, and consolidate) and avoid goals with rigid and prescriptive content

The principles of complexity theory introduced earlier in this series (box) are explicitly or implicitly espoused in a series of NHS documents covering continuing professional development and lifelong learning⁵; learning networks⁶; quality improvement and organisa-

This is the last in a series of four articles

5 Cuddington Road, Dinton, Aylesbury, Buckinghamshire HP18 0AB
Sarah W Fraser
visiting professor,
Middlesex University

University College London, London N19 3UA
Trisha Greenhalgh
professor of primary health care

Correspondence to:
S W Fraser
sfraser881@aol.com

Series editors:
Trisha Greenhalgh,
Paul Plsek

BMJ 2001;323:799-803

Complexity concepts applicable to education and training

- Neither the system nor its external environment are, or ever will be, constant
- Individuals within a system are independent and creative decision makers
- Uncertainty and paradox are inherent within the system
- Problems that cannot be solved can nevertheless be “moved forward”
- Effective solutions can emerge from minimum specification
- Small changes can have big effects
- Behaviour exhibits patterns (that can be termed “attractors”)
- Change is more easily adopted when it taps into attractor patterns

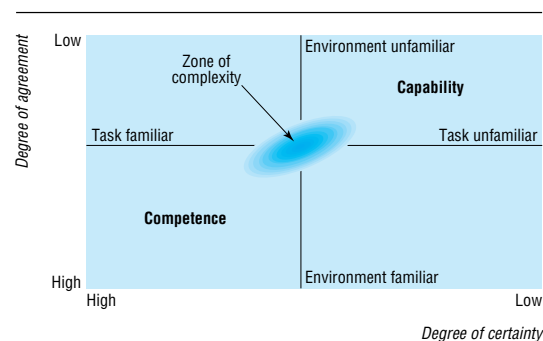
tional learning⁷; evidence based practice⁸; information and knowledge management⁹; and interprofessional working.¹⁰ This article highlights specific areas where complexity theory can inform the development of new educational approaches.

Developing capability: transformational learning

Individuals and systems change because they learn.¹¹ Indeed, pedagogical research has shown that adults choose to learn because they want to change.¹² The process of developing new behaviours in the context of real life experiences enables individuals to adapt to or co-evolve with new situations, thereby supporting the transition from individual competence to personal capability.¹³

Learning takes place in the zone of complexity¹⁶ (figure), where relationships between items of knowledge are not predictable or linear, but neither are they frankly chaotic. Learning which builds capability takes place when individuals engage with an uncertain and unfamiliar context in a meaningful way. Those of us who recall trying to prepare for house jobs by reading the textbook beforehand will know that capability cannot be taught or passively assimilated: it is reached through a transformation process in which existing competencies are adapted and tuned to new circumstances. Capability enables one to work effectively in unfamiliar contexts.

For example, suppose a doctor is doing a locum in a contraceptive clinic and the patient is a sex worker who speaks little English and is suspected of being HIV positive. The task has changed from the typical “textbook” pill check requiring merely competence (familiar task in a familiar environment) to a complex



Competence and capability in complex adaptive systems (based on Stacey¹⁴ and Stephenson¹⁵)

consultation testing the doctor’s capability (somewhat unfamiliar task in a somewhat unfamiliar environment). The doctor best able to cope with this is one whose training provided continual opportunities to be stretched by the uniqueness of each context, where knowledge had to be applied in ways the textbook did not anticipate, and where “expertise” was seen as the ability to access knowledge and make connections across seemingly disparate fields and life experiences.

In complex adaptive systems the behaviour of the individual agents, and therefore of the system of which they are part, evolves in response to local feedback about the impact of actions. Similarly, the basis of transformational learning is the information that is fed back to learners about the impact of their own actions and those of others. An education process that provides feedback about performance as it takes place will enhance capability. One such initiative based on feedback is the Norwegian continuing medical education system, where doctors in a peer group state learning needs, discuss ways forward, take action, and then report back on the feedback from the action.

Reflective learners are receptive to feedback and able to adapt appropriately, while poor learners are either unreceptive to feedback or they adapt inappropriately.^{17 18} Reflective learners transform as the world around them changes: poor learners simply complain about it.

Relational learning

Not so long ago, knowledge was hard to come by and experts were people with a lot of it. These days, there is so much knowledge available that we risk drowning in it.¹⁹ The official exhortation to “feel good about not knowing everything”²⁰ resonates well with complexity theory’s acknowledgement of the uncertain and unknowable and with the need to be alert to emerging information from different sources. The modern expert is someone who knows how to access knowledge efficiently and judiciously and who can form conceptual links between seemingly unrelated areas. The successful diabetologist, for example, is not necessarily the individual who is au fait with the latest research on insulin kinetics but one who is able to draw appropriately on the wider literature of pharmacology, nephrology, ophthalmology, cardiovascular epidemiology, psychology, anthropology, economics, and informatics.

Learning how things are interconnected is often more useful than learning about the pieces. Traditional curriculums, based on a discrete and simplistic taxonomy of disciplines that focus on the acquisition of facts, usually highlight content without helping learners understand the interrelationships of the parts. Without this understanding of the interactions and relations between the pieces it is difficult to apply the learning in a unique context.

Non-linear learning

“Checklist driven” approaches to clinical care, such as critical appraisal, clinical guidelines, care pathways, and so on, are important and undoubtedly save lives. But what often goes unnoticed is that such approaches are useful only once the problem has been understood. For the practitioner to be able to make sense of problems in

the first place requires intuition and imagination—both attributes in which humans, reassuringly, still have the edge over the computer.²¹ Education that makes use of the insights from complex systems helps to build on these distinctly human capabilities.

The complex real world is made up of messy, fuzzy, unique, and context embedded problems. Context and social interaction are critical components of adult learning.²² Adults need to know why they need to learn something and they learn best when the topic is of immediate value and relevance.²³ This is particularly true in changing contexts where capability involves the individual's ability to solve problems—to appraise the situation as a whole, prioritise issues, and then integrate and make sense of many different sources of data to arrive at a solution. Problem solving in a complex environment therefore involves cognitive processes similar to creative behaviour.²⁴ These observations are directly opposed to current approaches in continuing education for health professionals, where the predominant focus is on planned, formal events, with tightly defined, content oriented learning objectives.

For example, a typical course on asthma management for nurses might include a series of talks from experts on drugs, devices, monitoring, emergency care, and audit. Participants might be told that “on completion of this course, we expect that you will be able to advise a patient on the benefits and limitations of different inhaler devices,” and so on. This approach, while providing helpful information on content for the prospective delegate, ignores the fact that learners actively build, rather than passively consume, knowledge, and that learning simply does not progress via neat “building blocks” of factual content or skills training.

In reality a nurse who attended this asthma course might find that she didn't really understand the lecture on the use of steroids until a colleague explained some key points to her in the coffee queue, using examples drawn from her own patients. A more imaginative programme might have included a problem solving workshop on the broad theme of medication, with case studies brought by participants to stimulate group discussion, prioritise learning needs, and expose particular ambiguities (“what exactly don't you understand about this topic?”) before any specific content is introduced. Inclusion in the timetable of a structured reflection period towards the end of the workshop (for example, addressing the question “what have we learnt?”) enables the key learning points to be consolidated. A challenge for the proposed initiatives in the NHS will be to deliver vocational and learning oriented programmes without taking on the rigid features of more traditional “academic” curriculums.

We believe that the imaginative dimension of professional capability is best developed through non-linear methods—those in which learners embrace a situation in all its holistic complexity. The most straightforward example of a non-linear method is the story.²⁵ Doctors and nurses have long used story telling in professional training, and there is some evidence that clinical knowledge is stored in memory as stories (“illness scripts”) rather than as discrete facts.²⁶ There has, however, been remarkably little formal research into how stories might be used more effectively in professional education and service development. More work needs to be done on the formal use of story tell-

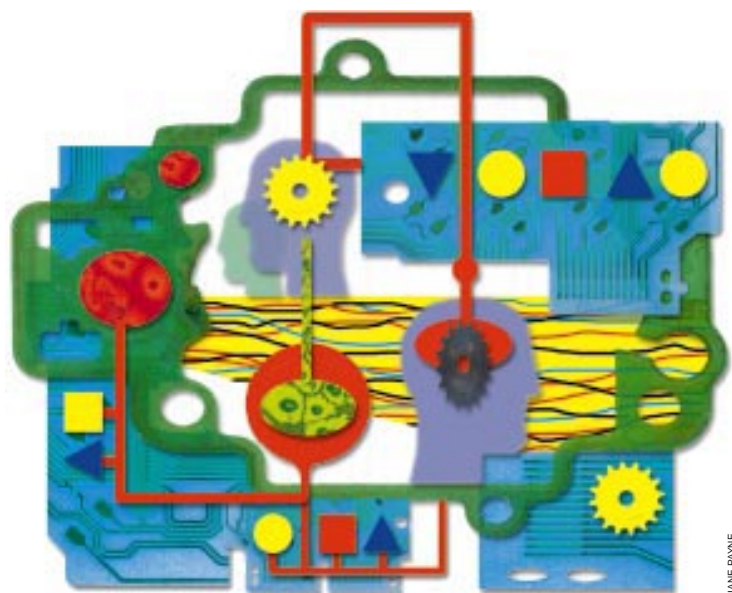
ing in particularly complex situations where a holistic view is essential—such as significant event audit,²⁷ exploring the extremes of illness experience (such as that of the profoundly disabled or traumatised patient²⁸), and the management of patients from other cultures.²⁹ The story can be told (as in a conventional case presentation), in the first person (as in a patient's own illness narrative³⁰), or enacted (as in role play³¹).

Another well known non-linear method is small group, problem based learning, in which a case history forms the basis of an exploratory dialogue facilitated by the tutor, and an emerging action plan is worked out by a group of participants.³² The group is encouraged to share ideas, divide up any necessary research work, and reconvene after a few days to add emerging data to what is already known. Problem based learning is no panacea: while it is valued and enjoyed by students and improves their ability to solve problems, perhaps unsurprisingly it does not improve their content knowledge as assessed in written examinations,³³ and it is debatable whether problem solving skills developed through artificial classroom situations will reliably transfer to behaviour in the real world. Clearly, the situation is not an “either or” choice but rather a dynamic balance, characteristic of a complex adaptive system, in which both content learning and non-linear learning methods are needed.

Process techniques

Complexity thinking maintains that an emergent behaviour, such as capability building, can be aided by some minimal structure (for example, minimum specifications and feedback loops). As education moves away from the potentially over structured “table d'hôte” menu of the predefined, content oriented syllabus designed for the mass market to the more “à la carte” menu designed for the complex, individual, self directed learner, attention needs to be focused on the process of learning.

The use of process techniques is the crucial distinction between learning which has a flexible and evolving content and learning which is simply disorganised and



LANE PAYNE

Process-oriented learning methods²⁹**Informal and unplanned learning**

Experiential learning—shadowing, apprenticeship, rotational attachments
 “Networking” opportunities—during formal conferences and workshops, through open plan poster exhibitions, or extended coffee and lunch breaks, for example

Learning activities—in structured course materials, such as reflection exercises, suggestions for group discussion

“Buzz groups” during intervals in lectures—the lecturer invites participants to turn to a neighbour and undertake a short task before the lecture resumes

Facilitated email list servers for professional interest groups

Teachback opportunities—newly skilled workers training others in new techniques and sharing their understanding

Feedback—responses that provide the learner with information on the real or projected outcome of their actions

Self directed learning

Mentoring—named individuals provide support and guidance to self directed learners

Peer supported learning groups—the small group process is used for mutual support and problem solving

Personal learning log—a structured form for identifying and meeting new learning needs as they arise

Appraisal—a regular, structured review of past progress and future goals

Flexible course planning that explicitly incorporates input from learners at key stages—using a ‘Post-it’ note exercise to add new learning objectives or amend a draft programme, for example

Modular courses with a high degree of variety and choice

Non-linear learning

Case based discussions—grand rounds, clinical case presentations, significant event audit

Simulations—opportunities to practise unfamiliar tasks in unfamiliar contexts by modelling complex situations

Role play

Small group, problem based learning (see text for definition)

Teambuilding exercises—activities focused on the group’s emergent performance rather than that of the individual

is unstructured, disjointed, and driven only by convenience or coincidence. When process techniques are used, learning is driven by needs and is characterised by a dynamic and emergent personal learning plan with explicit goals, protected time for reflection and study, mentoring or peer support, and perhaps a written learning log or record of achievement.³⁴ Process oriented techniques such as those listed (box) provide boundaries for the learning and the opportunity for prompt and relevant feedback from tutors or peers. Tutors adopt the role of facilitator, rather than lecturer or trainer.

As noted above, a small group can be a powerful educational structure for solving complex problems and promoting capability. In a small group the combination of individuals can achieve more than the sum of the parts (non-linear effects in a complex system), as social interaction between members stimulates learning, raises individuals’ confidence, and increases motivation.³¹ The group can also be a powerful source of both positive and negative feedback on an individual’s actions. Discovering ways in which personal behaviour impacts on the system, focusing on and assessing relationships, and finding ways to harness skills of individuals and teams to increase the amount of feedback, and thus learning.

But being part of a poorly functioning small group can be an unproductive, intimidating, and even

traumatic experience. The biggest mistake made by facilitators of such groups is to assume that because the task is intended to be emergent and learner focused, there is no need for attention to process. In reality, a group will feel sufficiently secure to take risks and be creative only if clear boundaries and ground rules have been set. In particular, minimum specifications for a small group might cover such items as the nature and scope of the task, the rules of confidentiality, the time limit, any differentiation of roles (who will chair, keep notes, and so on), and the group’s responsibility to its external stakeholders—the budget for a project or the details of what needs to be handed in at the end of the session, for example.³¹

Attention to process is the distinguishing characteristic of productive, non-linear learning. Future educational efforts, such as the university for the NHS or the leadership centre, almost certainly need fewer content experts and more tutors, mentors, and facilitators. The development of expertise in the learning process is itself a complex learning experience, and preliminary guidance has recently been published for both individual mentoring³⁵ and group based learning.³¹

The future of learning in healthcare systems

The word “university” conjures up images of lecture theatres, files of notes, and examinations designed to test retained skills and knowledge. As the table shows, and the stirring rhetoric of recent policy documents acknowledges, the new university for the NHS will need to break from the bonds of this image and adopt learning processes that are coherent with the complex adaptive experience of health care. The “learning outcomes” in the new curriculum should focus on capabilities, not competencies.

Competing interests: SWF is an independent consultant receiving fees for work on this topic.

- Smith R. All changed, changed utterly. British medicine will be transformed by the Bristol case. *BMJ* 1998;316:1917-8.
- Thomson A, Sanders C. Labour pledges NHS university. *Times Higher Educ Suppl* 2001 May 18:1. www.thes.co.uk/ (accessed 16 Aug 2001).
- Department of Health. *The NHS plan*. London: DoH, 2001.
- Department of Health. *A service of all the talents: developing the NHS workforce*. London: Department of Health, 2001.
- Department of Health. *Continuing professional development: quality in the new NHS*. London: Department of Health, 1999.
- Department of Health. *Welcome to the NHS learning network: spreading good practice*. London: NHS Executive, 1999.
- Secretary of State for Health. *A first class service: quality in the new NHS*. London: Stationery Office, 1998.
- Department of Health. *Promoting clinical effectiveness: a framework for action in and through the NHS*. Leeds: NHS Management Executive, 1996.
- Secretary of State for Health. *Working together with health information*. London: Stationery Office, 1999.
- Department of Health. *“In the patient’s interests”: multiprofessional working across organisational boundaries*. Leeds: NHS Management Executive, 1996.
- Senge P. *The fifth discipline: the art and practice of the learning organization*. New York: Doubleday/Currency, 1990.
- Greenhalgh T. Intuition and evidence—uneasy bedfellows? *Br J Gen Pract* (in press).
- Hite J. *Learning in chaos*. Houston, TX: Gulf Publishing Company, 1999.
- Stacey RD. *Strategic management and organizational dynamics*. London: Pitman Publishing, 1996.
- Stephenson J. Capability and quality in higher education. In: Stephenson J, Yorke M, eds. *Capability and quality in higher education*. London: Kogan-Page, 1995.
- Plsek P, Greenhalgh T. The challenge of complexity in health care. *BMJ* 2001;323:625-8.
- Hull C. *Principles of behavior*. New York: Appleton-Century-Crofts, 1943.
- Thorndike E. *The fundamentals of learning*. New York: Teachers College Press, 1932.

Increasing complexity in higher education^{36 37}

	Traditional education and training	The future for education and training
Knowledge	Knowledge is static, finite, linear, and private	Knowledge is dynamic, open ended, multidimensional, and public
Learning	Instructivist model ("facts" are transmitted from teachers to students)	Constructivist model (concepts are acquired, built and modified through social discourse, incorporated into appropriate schemes, and tested in action)
The university	Machine bureaucracy whose greatest resource is its stock of high-status knowledge	Adapting, dynamic and evolving organism whose greatest resource is its staff and the networks they maintain within and beyond its boundaries
The teacher	"Sage on the stage"	"Guide on the side"
Student population	Homogeneous (young, intellectually elite, full time)	Heterogeneous and shifting (wide range of ages, social and educational backgrounds, abilities, aims and expectations)
Student experience	Generally precedes definitive career choices and personal relationships	Lifelong learning means that education converges with (and is influenced by) work, family, and personal development
Assessment	Based on reproduction of facts	Based on analysis, synthesis, and problem solving
Course timetable	Teacher-centred, "Fordist" model lacking choice and flexibility	Learner centred model in which students mix and match options from different courses, departments, and even universities
Curriculum development	Historical model (students learn X because it's always been included)	"Outcomes" model (students learn X because employers require it as a competence)
Time and space utilisation	Synchronous, mass, single location learning (eg, lecture theatre, laboratory)	Asynchronous, individualised, with networked learning support
Quality assurance	Paperwork exercise that is resented by staff	Ongoing process of personal, professional, and organisational learning that is owned and driven by staff
Evaluation	Teacher focused ("what is being provided?")	Learner focused ("what are the learners' needs and are they being met?")
Relation between research and teaching	Discrete and hierarchical separation; addressed by different individuals, teams, and funding streams	Integrated model in which a major research question in any discipline is the nature of knowledge and how it can be effectively and efficiently acquired and utilised.
University funding	Mainly from block grants to institutions from a few official sources	Increasing reliance on diffuse and decentralised sources—including support for individual students, industrial sponsorship for bespoke courses, and partnerships with local businesses and services

- 19 Wyatt JC. Reading journals and monitoring the published work. *J R Soc Med* 2000;93:423-7.
- 20 Slawson DC, Shaughnessy AF, Bennet JH. Becoming a medical information master: feeling good about not knowing everything. *J Fam Pract* 1994;38:505-13.
- 21 Dreyfus HL, Dreyfus SE. *Mind over machine: the power of human intuition and expertise in the era of the computer*. Oxford: Blackwell, 1986.
- 22 Lave J, Wenger E. *Situated learning: legitimate peripheral participation*. Cambridge: Cambridge University Press, 1990.
- 23 Knowles M. *The adult learner: a neglected species*. 3rd ed. Houston, Texas: Gulf Publishing, 1984.
- 24 Langley P, Simon H, Bradshaw, G, Zytkow J. *Scientific discovery: computational explorations of the creative processes*. Cambridge, MA: MIT Press, 1987.
- 25 Greenhalgh T, Hurwitz B. Narrative based medicine: why study narrative? *BMJ* 1999;318:48-50.
- 26 Cox K. Stories as case knowledge; case knowledge as stories. *Med Educ* 2001;35:862-6.
- 27 Pringle M, Bradley CP, Carmichael CM, Wallis H, Moore A. *Significant event auditing: a study of the feasibility and potential of case-based auditing in primary care*. London: RCGP, 1995. (Occasional paper 70)
- 28 Crossley ML, Crossley N. "Patient" voices, social movements and the habitus; how psychiatric survivors "speak out." *Soc Sci Med* 2001;52:1477-89.

- 29 Skultans V. Anthropology and narrative. In: Greenhalgh T, Hurwitz B, eds. *Narrative based medicine: dialogue and discourse in clinical practice*. London: BMJ Publishing, 1998.
- 30 Herxheimer A, McPherson A, Miller R, Shepperd S, Yaphe J, Ziebland S. Database of patients' experiences (DIPEX): a multi-media approach to sharing experiences and information. *Lancet* 2000;355:1540-3.
- 31 Elwyn G, Greenhalgh T, Macfarlane F. *Groups: a hands-on guide to small group work in health care, education, management and research*. Oxford: Radcliffe Medical Press, 2000.
- 32 Bligh J. Problem-based, small group learning. *BMJ* 1995;311:342-3.
- 33 Vernon DTA, Blake RL. Does problem-based learning work? A meta-analysis of evaluative research. *Acad Med* 1993;68:550-63.
- 34 Challis M. Personal learning plans. *Med Teach* 2000;22:225-36.
- 35 English National Board for Nursing, Midwifery and Health Visiting. *Preparation of mentors and teachers—a new framework of guidance*. London: Department of Health, 2001. <http://tap.ccta.gov.uk/doh/point.nsf/publications> (accessed 24/8/01).
- 36 Daniel JS. The knowledge media. In *Mega-universities and knowledge media. Technology strategies for higher education*. London: Kogan Page, 1996: 101-35.
- 37 Rowley DJ, Lujan HD, Dolence MG. *Strategic choices for the academy: how demand for lifelong learning will re-create higher education*. San Francisco: Jossey Bass, 1998.

A memorable patient Compliments

During my specialist registrar rotation in obstetrics and gynaecology last year, I was posted to a busy district general hospital in Northern Ireland. One on call session was particularly busy. From Friday morning I attended more than 10 deliveries and performed four caesarean sections. By the early hours of Saturday morning, I was exhausted and praying that there would be no more operative deliveries before my replacement arrived. Unfortunately, a patient arrived at 6 am who needed almost immediate caesarean section. I hurriedly gulped a cup of tea while the spinal anaesthesia took effect and braced myself for another section.

The patient and her husband were told about the need for the operation and the risks involved before the procedure started. The husband was present in the operating room, sitting beside his wife and reassuring her. At the same time he was watching the operative procedure enthusiastically, though I did not notice his keen observation until he started talking to me.

Over the next half hour, he complimented me on my operative skills, starting with my preparation of the patient to the aesthetic wound closure using subcuticular stitches. He praised my speed of opening the abdomen, technique of delivering the baby, detailed knowledge of the anatomy, meticulous haemostasis,

handling of instruments, tying of knots, and cosmetically beautiful closure. He was most impressed by my gentle tissue handling. Although tired, I was delighted with his explicit and generous compliments. His comments not only boosted my morale but also seemed to enhance my prestige among the other theatre staff, who were also listening to him.

With his knowledge of abdominal organs, I was sure that he belonged to the medical profession but could not tell what branch of surgery he was in. In my experience, surgeons are rarely so appreciative of other surgeons' technical skills, and I was pleasantly surprised by his kind gesture. At that moment, genuine appreciation by the patient and her relatives was possibly the biggest reward for an overworked and tired junior doctor like myself.

After completing the procedure, I had returned to the doctors' rest room when the husband walked in to thank me for a final time. I thanked him in return but could not resist asking him whether he was a doctor and which specialty he practised. Slightly embarrassed, he replied, "Oh no. I'm a butcher."

Yashashri Choudhari *specialist registrar in obstetrics and gynaecology, Mater Hospital, Belfast*



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		Global Health (Health Sciences, Social Sciences, DeGroot School of Business)		
COURSE TITLE		Learning Symposium/Field Orientation		
COURSE NUMBER	*710	COURSE CREDIT		
		FULL COURSE ()	HALF COURSE (x)	QUARTER (MODULE) ()
INSTRUCTOR(S)		Andrea Baumann, Tim O'Shea, Anne Wong		
PREREQUISITE(S)		GLOB HTH *701, GLOBALST *710, HRM *721, BUS C721, GLOB HTH *702, and three electives		

NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)

NEW COURSE	<input checked="" type="checkbox"/>	DATE TO BE OFFERED: September 2010	WAS THE PROPOSED COURSE OFFERED ON DEAN'S APPROVAL? If Yes, Provide the Date:
-------------------	-------------------------------------	--	---

Will the course be **CROSS-LISTED** with another department? **NO** 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: New course developed for the Global Health program.		

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

All students in the Master of Science in Global Health Program are required to complete a Global Health Learning Symposium/Field Orientation, working in an approved public or private organization engaged in the prevention of disease, health promotion, health service delivery, health policymaking, or research in a global context. The placement provides the opportunity to become familiar with the kinds of organizations that put into practice the theory, concepts, and methods taught in the Master's program. This course will take place through field visits, small group discussions and the presentations of the conclusions from project work undertaken during the placement. After 3 weeks, students will also present their research findings, in order to receive feedback from peers.

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

The topics covered will be student led, based on the policy analysis and case study project completed in the Foundation courses. Local relevance of the topics will be ensured through careful selection of topics by students and close monitoring by tutors/supervisors. As well, the host organization will be intimately involved in planning the project, ensuring that the work done is relevant and useful to their goals and objectives. This course will take place through field visits, small group discussions and the presentations of the conclusions from project work undertaken during the placement. After 3 weeks, students will also present their research findings, in order to receive feedback from peers.

<p>1. STATEMENT OF PURPOSE (How does the course fit into the department's program?)</p> <p>The aim of the learning symposium is to provide students with the opportunity to exchange knowledge, as equal partners, at a location that will provide a unique learning environment. International placements offer students an unparalleled opportunity to gain insight about the broad determinants and policies of global health, comparative health care systems and a variety of international roles. As well, students will gain insight into the unique challenges involved in applying their knowledge and skills in unfamiliar settings.</p>
<p>2. EXPECTED ENROLMENT:</p> <p>25-50</p>
<p>3. DESCRIBE IN DETAIL THE METHOD OF PRESENTATION OF COURSE MATERIAL (i.e., lectures, seminars):</p> <p>To organize for study and research in the field placement a sensitive and appropriate approach will be taken, with a strong emphasis on co-learning and service, not simply learning. The first step in the co-learning process is taken by faculty, the careful selection of an appropriate location and the establishment of an equal partnership with a host organization(s). Second, students will be required to contact organizations and/or students working/studying in that location in order to identify health policy analyses and case studies that would be beneficial to the host organization. Third, during the symposium, McMaster students will present their policy analyses and case studies as one 'solution', and host organizations/students will present their 'solutions'.</p>
<p>4. DESCRIBE IN DETAIL THE METHOD OF EVALUATION: (For 600-level course, indicate the <u>Extra Work</u> to be required of graduate students, i.e., exams, essays, etc.)</p> <p>The evaluation breakdown includes the following: field work participation (20%) (Instructor will assign grade including input from field supervisor), field work paper (30%), symposium participation (15%) (Instructor will assign grade including input from student feedback), symposium presentation (35%).</p>
<p>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).</p> <p>N/A</p>
<p>6. IF THE COURSE IS INTENDED PRIMARILY FOR STUDENTS OUTSIDE YOUR DEPARTMENT, DO YOU HAVE THE SUPPORT OF THE DEPARTMENT/PROGRAM CONCERNED?</p> <p>N/A</p>
<p>PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:</p> <p>Name: Andrea Baumann Email: baumanna@mcmaster.ca Extension: 22581 Date: February 3, 2010</p>

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

GLOB HTH *710
**Learning Symposium/
Field Orientation**
Course Outline
McMaster University

GLOB HTH *710
**Learning Symposium/
Field Orientation**
Course Outline
McMaster University

Course Description

All students in the Master of Science in Global Health Program are required to complete a Global Health Learning Symposium/Field Orientation, working in an approved public or private organization engaged in the prevention of disease, health promotion, health service delivery, health policymaking, or research in a global context. The placement provides the opportunity to become familiar with the kinds of organizations that put into practice the theory, concepts, and methods taught in the Master's program.

Overview

This course will take place through field visits, small group discussions and the presentations of the conclusions from project work undertaken during the placement. After 3 weeks, students will also present their research findings, in order to receive feedback from peers.

Field Placement:

To organize for study and research in the field placement a sensitive and appropriate approach will be taken, with a strong emphasis on co-learning and service, not simply learning. The first step in the co-learning process is taken by faculty, the careful selection of an appropriate location and the establishment of an equal partnership with a host organization(s). Second, students will be required to contact organizations and/or students working/studying in that location in order to identify health policy analyses and case studies that would be beneficial to the host organization. A list of potential sites will be provided based on existing affiliations/memorandums of understanding. Third, during the symposium, McMaster students will present their policy analyses and case studies as one 'solution', and host organizations/students will present their 'solutions'.

Aim of the Learning Symposium/Field Orientation

The aim of the learning symposium is to provide students with the opportunity to exchange knowledge, as equal partners, at a location that will provide a unique learning environment. International placements offer students an unparalleled opportunity to gain insight about the broad determinants and policies of global health, comparative health care systems and a variety of international roles. As well, students will gain insight into the unique challenges involved in applying their knowledge and skills in unfamiliar settings.

During the Learning Symposium/Field Orientation feedback is provided by all participants. This stimulates co-learning and does not valorize one's knowledge over another's. All presentations and discussions are seen as equal learning opportunities for all participants.

Learning Objectives

General Objectives:

- Development of leadership skills and ability to effectively interact with public health professionals, leaders and community members from diverse communities.
- Demonstrate first-hand knowledge of community agencies, organizations or other workplaces in which public health interventions and/or health risk assessments are carried out, including their mission, organizational structure, primary methods used to prevent illness and injury, and any specific populations targeted and unique health risks they present. Describe first-hand knowledge and experience with public health services including federal, state and local public health departments

Each group of student placements will be unique, therefore students are required to devise a subset of learning objectives that they must prepare and have approved (see Appendix 1 Field Placement Planning Guideline, and Appendix 2 Field Placement Planning Form for submission).

Topics

The topics covered will be student led, based on the policy analysis and case study project completed in the Foundation courses. Local relevance of the topics will be ensured through careful selection of topics in Foundations I and II. As well, the host organization will be intimately involved in planning the project, ensuring that the work done is relevant and useful to their goals and objectives.

Criteria for Selecting Internship Sites

Students are expected to identify a placement that provides a challenging and rewarding experience in global health. While placements will vary considerably among students, the following basic criteria should be used in selecting sites for placements:

1. Willingness of the agency to provide an internship relevant to global health
2. Relationship of the agency and the assignment to global public health issues
3. Conducive environment for graduate-level fieldwork
4. Ability of the agency to provide adequate and suitable supervision. Ideally, the preceptor or mentor should have formal public health training.

In addition, each internship must include at a minimum the following elements:

- Meaningful work assignments and other experiences requiring synthesis and application of Global Health core knowledge (not necessarily all core but must be more than their own area of interest).
- Opportunity to apply specific knowledge and skills unique to their discipline.
 - Increased understanding of career options in public health.
 - Opportunities to work and network with community members and/or various public health professionals.
 - Some tangible work product that helps to document what the student gained from the experience.

Preparation for Departure

A mandatory one-day pre-departure workshop and orientation will be provided to students in term 2 prior to departure for the learning symposium/field orientation. Students will be provided with essential information regarding finances, travel, immigration, medical, cultural and country information.

Upon completion of the learning symposium/field orientation students are required to complete a re-entry orientation session to help students re-adjust to McMaster University and the Canadian environment.

Paper

The student will submit a paper, analyzing a specific global health problem, or a reflection in relation to their placement. The paper will include the evaluation of an initiative they were involved with during their international placement, The paper will include a critique of relevant literature as well as a problem statement, methods and interpretation and discussion. This paper will allow the student to integrate previous work into a final research paper.

Evaluation

Field Work

- Participation 20%
(Instructor will assign grade including input from field supervisor)
- Paper 30%

Symposium

- Participation 15%
(Instructor will assign grade including input from student feedback)
- Presentation 35%

Academic Integrity:

Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at

http://www.mcmaster.ca/senate/academic/ac_integrity.htm

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained. For this course, it is recommended that all work be appropriately referenced using APA 5th Edition Manual.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

Appendix 1
Master of Science in Global Health
McMaster University

Field Placement Planning Form Guideline
--

<i>Organization/Company</i>	Indicate the main or “parent” organization/company that you are providing service work
<i>Department/Unit/Branch</i>	Indicate the name of the department within the main organization.
<i>Project Name</i>	The official name of the funded (or to be funded) project that the student will be working on. If there is no particular project then leave this blank.
<i>Address</i>	The physical location of where you will be working
<i>Primary Field Supervisor</i>	The individual who is identified to be the primary staff person to oversee your work
<i>Secondary Field Supervisor</i>	Identified when the primary field supervisor is out of town or filling in during busy periods

Learning Objectives: Develop at least three (3) objectives that you hope to achieve through your placement. Must be written in Specific, Measurable, Achievable, Realistic and Time-bound (SMART) terms.

Duties/Responsibilities: Must be clear, specific, appropriate and related to your selected GH field of interest/track. In addition, duties must include activities that will be performed both in the office and the field/community (i.e. community meetings, interviews, focus groups, direct service, field sampling etc.).

Appendix 2
Master of Science in Global Health
McMaster University

FIELD PLACEMENT PLANNING FORM

Date: _____

STUDENT INFORMATION

Student Name: First: _____ Last: _____
Student ID: _____
Address: _____
City: _____ Province: _____ Postal Code: _____
Phone/Email: _____ Telephone: _____ Email: _____

Faculty Advisor's Name: _____

GH Concentration: Globalization and Development
 Global Health Management Global Diseases

ORGANIZATION/INSTITUTION INFORMATION

Organization/Company Name: _____
Department/Branch/Unit: _____
Project Name (if applicable): _____
Address: _____ City: _____ Postal Code: _____
Phone: _____ Website: _____

PRECEPTOR INFORMATION

Primary Field Supervisor (optional):
Title: _____
Address: _____ City: _____ Postal Code: _____
Phone: _____ Alt. Phone: _____ Email: _____

Secondary Field Supervisor (optional):
Title: _____
Address: _____ City: _____ Postal Code: _____
Phone: _____ Alt. Phone: _____ Email: _____

Brief Description of organization **AND** internship project:

Learning Objectives (must include at least three objectives):

Major Tasks/Responsibilities

Office Duties:

In Field/Community:

Name of Organization(s) where duties will be performed (if applicable):

Start Date:

End Date:

Expected Hrs/Wk:

Compensation (amount) OR benefits provided:

Student: _____
Date: _____

Primary Field Practice

Supervisor: _____
Date: _____

Secondary Field Practice

Supervisor: _____
Date: _____



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		Global Health (Health Science, Social Science, DeGroote School of Business)		
COURSE TITLE		Scholarly Paper		
COURSE NUMBER	711	COURSE CREDIT		
		FULL COURSE (x)	HALF COURSE ()	QUARTER (MODULE) ()
INSTRUCTOR(S)		Individual Faculty Members, coordinator Andrea Baumann		
PREREQUISITE(S)		GLOB HTH *701, GLOBALST *710, HRM *721, BUS C721, GLOB HTH *710 and 3 electives		

NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)

NEW COURSE	<input checked="" type="checkbox"/>	DATE TO BE OFFERED: September 2010	WAS THE PROPOSED COURSE OFFERED ON DEAN'S APPROVAL? IF YES, PROVIDE THE DATE:
-------------------	-------------------------------------	--	---

WILL THE COURSE BE **CROSS-LISTED** WITH ANOTHER DEPARTMENT? NO 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: New course developed for the Master of Science in Global Health program.		

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

This full course is designed as an opportunity for graduate course-based MSc students to demonstrate in writing, their ability to integrate ideas that reflect current knowledge in Global Health. 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 15 to 20 pages, excluding references and appendices. The paper does not involve the collection or analysis of primary data or the conduct of research with subjects. It is a scholarly essay, not a thesis. It is critical to the course-based MSc. students to demonstrate mastery of the theoretical and methodological understandings that have been acquired during the course work.

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

Normally after the 5 required and 3 elective courses have been completed, course-based MSc. students in the Global Health Graduate Program will complete the scholarly paper. The scholarly paper provides an opportunity for students to demonstrate, in writing their ability to integrate ideas that reflect current knowledge that focuses on one of the following: clinical practice, research, health systems or education. The scholarly paper is to demonstrate integrative thinking at a general and abstract level. The topic must be specific and cannot be covered in-depth in other course work. The student will be expected to develop a proposal providing a rationale for the topic, the issue to be examined, timelines, and bibliography.

1. STATEMENT OF PURPOSE (How does the course fit into the department's program?)

The purpose of the Scholarly Paper is to demonstrate integration of learning across the courses that a student has taken in the Global Health Program. The paper should reflect the student's understanding of:

- i) Methodological issues and global health concepts
- ii) Your ability to independently apply them and discuss them in a concise, critical and coherent manner
- iii) The paper should not involve the collection or analysis of primary data, the conduct of research with subjects or design of a research protocol. It is a scholarly essay, not a thesis.

2. EXPECTED ENROLMENT:

20-25

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

The course is an independent self-directed in-depth exploration of a topic chosen by the student and approved by his/her faculty advisor. The student will be working under the supervision of a faculty member whose research, clinical, or teaching interests match the student's learning needs and who is willing to work with the student. The student will meet regularly with the faculty advisor. The student will develop a proposal for the scholarly paper and after approval (a passing grade) will work independently until the paper is completed. An evaluation of the paper will be completed by the faculty advisor and an external examiner from within the department.

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.)

The scholarly paper will be judged on a pass/fail basis.

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: Andrea Baumann Email: baumanna@mcmaster.ca Extension: 22581 Date: February 3, 2010

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

Master of Science in Global Health (GLOB HTH 711)

GLOB HTH 711 SCHOLARLY PAPER COURSE OUTLINE

1.0 Timing

Under normal circumstances students are expected to complete the scholarly paper in the academic term following completion of their course work or during the term that the student is completing the learning symposium/field placement. Failure to successfully complete the scholarly paper will require withdrawal from the MGH Program. The student should declare any potential conflicting event which may take place during the scholarly paper process so that the Faculty Advisor can take the time into consideration.

Who is Eligible?

Students completing the course-based Global Health Master's degree are required to complete the Scholarly Paper as part of their degree requirements.

Purpose

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

- i) Methodological issues and global health concepts
- ii) Your ability to independently apply them and discuss them in a concise, critical and coherent manner
- iii) The paper should not involve the collection or analysis of primary data, the conduct of research with subjects or design of a research protocol. It is a scholarly essay, not a thesis.

2.0 Steps in the Scholarly Paper Process

2.1 A Faculty Advisor will be chosen or assigned for the scholarly paper. The student will arrange an in-person, online or telephone meeting with his/her Faculty Advisor to begin exploring possible global health- focused, research-focused, health-system or education-focused topics that are complementary to his/her work about one month before the course begins. The topic cannot be one on which the student has previously written a paper or done a substantive presentation (e.g. worth 40% or more of a course grade). The student notifies the Course Coordinator in the Global Health Office (MDCL 3500) that he/she wishes to begin the process for approval of a scholarly paper topic and an electronic copy of the **Global Health Scholarly Paper Proposal Form** will be sent to the student (see Appendix 1).

2.2 Student will meet as necessary with his/her Faculty Advisor to discuss topics and prepare a proposal. This proposal becomes the student's contract with the examiners and his/her roadmap for writing the paper.

2.3 Complete a proposal of the scholarly paper (2 pages exclusive of references). This should consist of: a) paragraph which provides the rationale for choosing the topic; b) a paragraph which describes the purpose of the paper, and c) a point-form outline of the main areas of content to be included in the paper. Note that the rationale and purpose should be supported with appropriate references. A list of preliminary key references (extensive but not exhaustive) should be appended. The student must also append a list of the titles of papers they have written and graded presentations they have made for courses during the MGH Program, along with the course numbers of the courses for which each was submitted **Global Health Scholarly Research Paper Topic Approval Form** (see Appendix 2).

2.4 The proposal must be approved by the Advisor before it goes forward for consideration by the GH Curriculum Committee and this approval should be confirmed by an email from the Advisor to Dr. Andrea Baumann, the Chair of the GH Curriculum Committee (baumanna@mcmaster.ca). Also included in this

Master of Science in Global Health (GLOB HTH 711)

email should be the names of potential examiners on the topic. The examiners must be GH graduate faculty members. It is then considered for approval by the GH Curriculum Committee.

2.5 The Chair of the GH Curriculum Committee will notify the student and advisor when the proposal is approved, which usually occurs within one week after submission, and will confirm the due date of the paper. The student must then complete the hard copy of the Global Health Scholarly Paper Topic Approval Form, reference list, and list of papers and presentations and submit to the Course Coordinator in the Global Health Office (MDCL 3500). This includes ensuring the appropriate signatures are completed. The student will normally have twelve to sixteen weeks to write the paper. An extension of up to two weeks may be requested for extenuating circumstances.

2.6 Note that the student may consult with the Advisor during the writing period regarding resources and points of clarification, but reading drafts of the paper or any other direct comments on the paper should not occur.

2.7 Before 4:00pm on the day that the scholarly paper is due, three hard copies of the Scholarly Paper must be submitted to the Global Health Office (MDCL 3500) for the two examiners and one for the advisor.

2.8 Selection of examiners is done by the Chair, GH Curriculum Committee, from the list provided by the Advisor. Usually the paper is read by the Advisor and one other GH graduate faculty. Once confirmed they are sent copies of the **Scholarly Paper Evaluation Criteria** (see Appendix 3) and the proposal for the paper. The examiners will review the paper independently, using the evaluation of the paper must be sent to the Chair, GH Curriculum Committee within two weeks of the receipt of the paper.

2.9 Written feedback to the student about whether (s)he passed or failed will then be given by the Chair of the Global Health Curriculum Committee. If the paper is deemed unsatisfactory, one rewrite will be allowed (within a four-week period) after formal written notification of the unsatisfactory grade to the student is given by the Chair of the Global Health Curriculum Committee. A pass/fail decision will be made and feedback given within one week (with consideration of availability of both readers).

2.10 Once a student passes the final scholarly paper requirement, the **Notification of Completion of GH M.Sc Requirements Course-based Option form** must be completed to permit graduation. This form is available from the Global Health Office (MDCL 3500). The completed form is submitted to the FHS School of Graduate Studies Office (MDCL 2235) with an additional copy provided to the Global Health Office.

3.0 Other Guidelines

4.1 The scholarly paper, like final papers for courses is to be written solely by the student. It is essential that the student references appropriately and avoids any suggestion of plagiarism. McMaster's policy on plagiarism on the university website:

<http://www.mcmaster.ca/academicintegrity/students/typeofad/plagiarism/>

Master of Science in Global Health (GLOB HTH 711)

4.2 Format and Grading

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

4.3 Examples of Research

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

Appendix 2
Global Health Scholarly Paper Topic Approval Form

Please list the Global Health courses you have completed and the title of the final assignment you submitted for each one.

Global Health Courses Completed	Title of Final Assignment

FOR INTERNAL USE ONLY	
Date Proposal Received for Review:	
Curriculum Committee Reviewer:	
Faculty Advisor (Reader #1):	
Reader # 2:	
Date Proposal Approved:	
Date Scholarly Paper Due:	
Date Faculty Reviews Due:	
Notes, rewrites if any:	

Appendix 3

Global Health Scholarly Paper Evaluation Criteria

Student's Name: _____ **Date:** _____

TOPIC TITLE: _____

Examiner: _____

The following guidelines should be used in evaluating the submitted paper. Please use the guidelines to evaluate the paper and prepare written feedback on the paper.

CONTENT:

1. The scope of the paper is clearly identified and is consistent with the approved proposal.

Comments:

2. Rationale for the importance and relevance of the topic is provided.

Comments:

3. Theoretical literature is used to structure the review of the topic under consideration.

Comments:

4. Critical analysis of the research literature cited is evident.

Comments:

5. Reasoned arguments are presented to support interpretation of the issue under study.

Comments:

6. Clear and logical connections are made between evidence from the literature and conclusions and suggestions presented by the student.

Comments:

7. Content presented is accurate.

Comments:

8. Content presented is relevant and includes current as well as older material that is seminal to the field of exploration.

Comments:

9. The conclusions reached are based on good judgment, reasoning and evidence.

Comments:

10. Implications for application of information are evident.

Comments:

Appendix 3

Global Health Scholarly Paper Evaluation Criteria

FORMAT:

1. The purpose of the paper is stated clearly in the introduction.

Comments:

2. There is a concise, logical ordering of ideas.

Comments:

3. There is adequate documentation of ideas.

Comments:

4. There is appropriate referencing of the literature cited.

Comments:

5. The paper is well written with good sentence structure, grammar and spelling, following APA or AMA format.

Comments:

Summary comments of strengths and areas of improvement:

Recommended Mark:

Notification of Completion of Global Health Requirements

Course-Based Option

Student's Name:	ID#:
-----------------	------

Topic of Scholarly Paper:
Date Scholarly Paper requirement completed:

Courses Completed:	M / EC / D
SGS 101	

Date of Completion of Learning Symposium/Field Orientation:

Date of Completion of requirements for Course-Based Global Health:
--

Assistant Dean, Global Health (*signature*):

Date:

Student (*signature*):

Date:

Please return this form to the Global Health Office, MDCL 3500.

February 26, 2010

To: Faculty of Business Graduate Curriculum Committee

From: Norm Archer (on behalf of the MSc eHealth Graduate Program)

Subject: Minor Change to Previously Approved MSc eHealth Copy for 2010 Graduate Calendar

The attached is a revised MSc eHealth program description, showing a minor change to the previously approved copy for the 2010 Graduate Calendar.

The change appears on Page 3, in the first paragraph under "Admission". It involves the addition of the statement "An undergraduate course in statistics would also be considered advantageous for applicants."

The reason for the change is that many of our students, during their internships and later on during their careers, will be called upon from time to time to gather and analyze statistical data, and they should be familiar with standard statistical analysis methodologies. We do not want to make this a requirement, since none of the program's required courses have such a course as a pre-requisite.

eHealth

eHealth (also known as Health Informatics) is defined as “The knowledge, skills and tools which enable information to be collected, managed, used and shared to support the delivery of healthcare and to promote health.” The objective of the program is to produce Masters level graduates with high quality training in the broad interdisciplinary area that spans eHealth, emphasizing industry relevant academic research and development.

The program is based on a collaborative partnership among the Faculties of Health Sciences, Engineering and the DeGroote School of Business. It is administered by the DeGroote School of Business. Three Academic Units are major collaborators in the program: the Department of Clinical Epidemiology and Biostatistics (Faculty of Health Sciences), the Department of Computing and Software (Faculty of Engineering), and the Information Systems Area in the DeGroote School of Business. Additional faculty members with eHealth interests from other departments also participate in the program.

Enquiries: 905-525-9140 Ext. 23950
Fax: 905-528-0556
E-mail: ehealth@mcmaster.ca
Website: <http://mscehealth.mcmaster.ca/>

Staff / Fall 2010

PROFESSORS

R. Brian Haynes, B.Sc., M.D. (Alberta), M.Sc., Ph.D. (McMaster), F.R.C.P.(C), Clinical Epidemiology and Biostatistics / Medicine
Anne Holbrook, B.Sc. Pharm. (Toronto), Pharm. D. (Philadelphia), M.D., M.Sc. (McMaster), F.R.C.P.(C) / Medical Sciences / Physiology / Pharmacology
Donna Ciliska, B.Sc.N., M.Sc.N (Western), Ph.D. (Toronto) / Nursing
Franya Franek, M.Sc., RNDr. (Charles, Prague), Ph.D. (Toronto) / Computational Engineering and Science
Robert Issenman, M.D., Professor / Pediatrics
Ryszard Janicki, M.Sc. (Warsaw), Ph.D., D.Hab. (Polish Academy of Sciences) / Computing and Software
Thomas Maibaum, B.Sc. (Toronto), Ph.D. (London) / Canada Research Chair, P.Eng. / Computing and Software
Ali Montazemi, H.N.D. (Teesside Polytechnic, U.K.), M.Sc. (Southampton), Ph.D. (Waterloo) / Information Systems
Joseph Tan, B.A. (Wartberg), M.S. (Iowa), Ph.D. (British Columbia) / Information Systems / Wayne C. Fox Chair in Business Innovation
Yufei Yuan, B.S. (Fudan), Ph.D. (Michigan) / Information Systems

ASSOCIATE PROFESSORS

Christopher Anand, B.Math (Waterloo), M.Sc., Ph.D. (McGill) / Computing and Software
Nick Bontis, B.A., Ph.D. (Western) / Strategic Market Leadership & Health Services Management / Director, Undergraduate Programs
Kenneth R. Deal, B.S., M.B.A., Ph.D. (SUNY at Buffalo) / Strategic Market Leadership & Health Services Management
Maureen Dobbins, B.Sc.N. (McMaster), Ph.D. (Toronto) / Nursing
Lisa Dolovich, B.Sc. Pharm (Toronto), M.Sc. (McMaster), Pharm. D. (Toronto) / Physiology / Pharmacology / Clinical Epidemiology and Biostatistics
Douglas G. Down, B.A.Sc., M.A.Sc. (Toronto), Ph.D. (Illinois, Urbana-Champaign), P.Eng. / Computing and Software
Khaled S. Hassanein, B.Sc. (Kuwait), M.A. Sc. (Toronto), M.B.A. (Wilfred Laurier), Ph.D. (Waterloo), P.Eng. / Chair Information Systems / Director, McMaster eBusiness Research Centre
Elkafi Hassini, B.Sc., (Bilkent), M.A.Sc., Ph.D. (Waterloo) / Operations

Management

Milena Head, B.Math (Waterloo), M.B.A., Ph.D. (McMaster) /
Information Systems / Associate Dean, DeGroot School of
Business

David Koff, M.D. (Rene-Descartes), Chair, Department of Radiology

Anthony Levinson, M.D., M.A. (Sussex), M.Sc. (McMaster),

F.R.C.P.(C) / John R. Evans Chair Health Sciences / Educational
Research and Instructional Development

Ann McKibbin, B.Sc. (Guelph), M.L.S. (Western), Ph.D. (Pittsburgh) /
Clinical Epidemiology and Biostatistics

W.F. Skipper Poehlman, B.S. (Niagara), B.Sc. (Brock), M.Sc., Ph.D.
(McMaster), P.Eng. / Computing and Software

Parminder Raina, B.Sc. (Saskatchewan), Ph.D. (Guelph) / Clinical
Epidemiology and Biostatistics

Rolf J. Sebaldt, B.Sc., M.D., C.M. (McGill), F.R.C.P.(C), F.A.C.P. /
Clinical Epidemiology and Biostatistics / Medicine

Lehana Thabane, B.Sc. (Lesotho), M.Sc. (Sheffield), Ph.D.

(Western) / Clinical Epidemiology and Biostatistics

Ruta Valaitis, B.A., B.Sc.N. (Windsor), M.H.Sc. (McMaster), Ph.D.
(Toronto) / Nursing

Alan Wassyn, B.Sc. (Hons), M.Sc., Ph.D. (Witwatersrand), P.Eng. /
Computing and Software

ASSISTANT PROFESSORS

Pamela Baxter, B.A. (Wilfred Laurier), B.Sc.N., M.Sc., Ph.D.
(McMaster) / Nursing

Ilana Bayer, Ph.D. (Toronto) / Pathology and Molecular Medicine

Christopher Longo, B.A. (York), M.Sc. (Western), Ph.D. (Toronto) /
Strategic Market Leadership & Health Services Management

David Musson, M.D. (Western), Ph.D. (Texas at Austin) / Anesthesia

Kamran Sartipi, B.Sc., M.Sc. (Tehran), M.Math, Ph.D. (Waterloo),
P.Eng. / Computing and Software

ASSOCIATE MEMBERS

David H. Chan, B.Sc.E.Eng. (Louisiana) M.D. (Toronto), C.C.F.P.,
M.Sc. (McMaster) F.C.F.P., Associate Professor / Family Medicine

Alex Drossos, B.E.Sc., B.Sc., M.B.A (McMaster), M.Ed (Toronto, in
progress), M.D. (St. George's, in progress), Adjunct Professor
(McMaster) / Health Services Management

Karim Keshavjee, B.Sc. (McGill), M.Sc. (Toronto), M.D. (Toronto),
M.B.A. (Toronto), C.C.F.P. / InfoClin

Marion Lyver, B.Sc. (Hons), M.D. (Memorial), F.R.C.P.(C) , F.C.F.P.C.,
Dip. ABEM, CPHIMS, Associate Professor / Family Medicine

Rocco Piro, B.Sc. (McMaster), / Director, IT, Faculty of Health
Sciences

Nancy Wilczynski, B.A., M.Sc., Ph.D. (McMaster) / Clinical
Epidemiology and Biostatistics

Donald Willison, B.Sc. (Toronto), M.Sc. (McMaster), Sc.D. (Harvard)
Associate Professor / Clinical Epidemiology and Biostatistics

Andrew Worster, B.Sc., M.Sc. (New Brunswick), M.D. (Dalhousie),
M.Sc. (McMaster), C.C.F.P. (EM), F.C.F.P. / Medicine / Clinical
Epidemiology and Biostatistics

PROFESSORS EMERITI

Norman P. Archer, B.Sc. (Alberta), Ph.D. (McMaster), M.S. (New
York) / Information Systems

William F. Smyth, B.A. (Toronto), M.Sc. (Ottawa), Ph.D. (Curtin),
C.Eng., F.B.C.S., F.I.C.A. / Computing and Software

Areas of Specialization

Students may specialize in one of the three fields in the program:
health sciences, computer science, or business. All students are
required to complete the three core courses, and a variety of elective
courses in each field are available to cater to individual interests.
Student specialization interest must be declared when applying for
admission. Each student is assigned a supervisor from the student's
field of interest upon registration, and a second member of the
supervisory committee from one of the other two fields is appointed to
ensure that the student maintains a broadly focused view of the

eHealth field. All students must participate in and contribute to a seminar series designed to acquaint students with recent advances in the eHealth field.

Admission

Students entering the eHealth program may be admitted from a variety of suitable undergraduate degrees. They will belong to a community with a variety of backgrounds in related fields, with common interests in information technology to support health services delivery and research. The main requirements are a good background in computing and a strong interest in the use of computing support in healthcare applications. Students will not be admitted to the program unless they can present evidence that they have taken a minimum of two computer science – related courses at the undergraduate level. One of these courses must be in computer programming and the second course must be in either data base design or data structures and algorithms. A background from the health sciences, life sciences, business, or computer science is an asset, but not a requirement. An undergraduate course in statistics would also be considered advantageous for applicants. The Admissions Committee will in each case judge the candidate's suitability for the program. A minimum B+ average in the final year of a four year undergraduate degree program is required for admission. Applicants for the full-time options must also pass a face-to-face interview that evaluates their suitability for an eight month internship, a required component of the program.

All students admitted to the program must pass a background test in information technology (IT) before taking the required course eHealth 757. Students preparing for this test will be provided with study materials and, where possible and appropriate, tutorial assistance.

Degree Options and Internship

A candidate for the M.Sc. eHealth degree may choose to take the program either full-time or part-time. The full-time program has two options: thesis or course-project. In the thesis option, students must complete the three required courses plus one elective course from the field of specialization (a total of four courses), and complete and defend a Master's thesis successfully. The thesis option is not open to part-time students. Completion of the M.Sc. thesis option is the preferred route to a Ph.D. program in a similar field (e.g., Health Research Methodology, Computer Science, or Business). In the course-project option (which may be taken full or part-time), students take the three required courses, two electives from the field of specialization, and two other electives selected from one or both of the other two fields (for a total of seven courses). All courses must be completed with at least a B- standing.

Students taking the thesis option are expected to complete their programs and submit their research theses within 24 months of registration. Full-time students taking the course-project option are expected to complete their programs within 20 months, including a project which will normally be a scholarly paper arising from a relevant study in eHealth. Full time students are limited to a maximum of three years from initial registration. Part-time students are expected to complete their programs within four years of registration, but are limited to a maximum of five years. They are also required to complete a project that is a scholarly paper relevant to eHealth, often for their current employer if the employer is in a health care industry.

In addition to coursework, all full-time students must complete an eight month paid internship with a company, healthcare institution, or government agency.

Courses

Required Courses

All required and elective courses are half courses.

eHealth *724 / eHealth: Fundamentals of eHealth and the Canadian Health Care System / A. McKibbin (same as HRM 724)

This tutorial-based course will cover a broad range of eHealth topics from the perspective of health care delivery. Topics include a definition of eHealth; health care data; hospital and primary care information systems (i.e., electronic health records [EHR] systems), specialty components of an EHR system; how health professionals use data; human/cognitive factors in development and implementation of eHealth applications, standards, vocabulary and nomenclatures and how used; aggregation of health information, especially for research purposes; patient information systems and consumer eHealth; research and evaluation of eHealth applications and research using eHealth applications; implementation issues and privacy, security, and confidentiality; and the future of eHealth. Prerequisite: One-day orientation to the Canadian health Care Systems for students (non-health background).

eHealth * 736 / Management Issues in eHealth / N. Archer (same as BUS K736)

This course covers a number of topics relevant to the management of electronic health systems. These topics will be presented in an integrated manner that will promote an understanding of health system governance, accountability, risk analysis, management, legal and regulatory standards, and policies. It will demonstrate real issues by focusing on a team-based case study through much of the course that covers the life cycle process of managing a project to implement an eHealth system, beginning with needs analysis and ending with implementation and maintenance. Prerequisite: K603 Information Systems Management (see MBA calendar) or equivalent.

eHealth *757 / Modern Software Technology for eHealth / K. Sartipi (same as COM SFWR 757)

This course exposes the graduate students in software engineering, computer science, or related programs to the challenges in the field of electronic health (eHealth). The course introduces a collection of modern architectures and technologies that are recommended by standardization organizations to build the infrastructure that meets the emerging demands in the growing network of healthcare systems. The topics include: standard healthcare data and service representations; clinical terminology systems; web services and service oriented architecture; decision support systems; data mining techniques on clinical data; data and knowledge interoperability; security and privacy techniques, and; healthcare application development environments. Prerequisites: eHealth 724 and eHealth 736; Successful completion of required background test in information technology.

Elective Courses

For course details, see MBA Calendar (School of Business courses); and the School of Graduate Studies Calendar: Computing and Software; and Nursing. Courses listed in the School of Graduate Studies Calendar for the Health Research Methodology program (except HRM 724) are also available as electives. Other courses not listed below may be approved through special permission.

SCHOOL OF BUSINESS

- * 721 Health Policy Analysis / G. Randall (same as BUS C721)
- * 722 / Management of Population Health / C. Longo (same as BUS C722)
- * 723 / Data Mining and Business Intelligence / Y. Yuan (same as BUS K723)
- * 725 / Business Process Reengineering / A. Montazemi (same as BUS K725)
- * 726 / eBusiness Strategies / K. Hassanein (same as BUS K724)
- * 727 / Strategic Knowledge Management / N. Bontis (same as BUS P727)
- * 731 / Project Management / J. Tan (same as BUS K731)
- * 734 / Supply Chain Management / E. Hassini (same as BUS O 734)

- * **737** / Cases in eBusiness, Innovation, and Entrepreneurship / K. Hassanein (same as BUS K737)
- * **792** / Security, Privacy, and Trust in eBusiness / Y. Yuan (same as BUS K792)

COMPUTING AND SOFTWARE

- * **6CD3** / Distributed Computer Systems / S. Poehlman (same as COMP SCI 6CD3)
- * **6D03** / The Human Computer Interface / S. Poehlman (same as SFWR ENG 6D03)
- * **6M03** / Databases / F. Franek (same as SFWR ENG 6M03)
- * **6WW3** / Web Systems and Web Computing / K. Sartipi (same as COMP SCI 6WW3)
- * **730** / Machine Learning and Related AI Topics / I. Bruha (same as COM SFWR 730)
- * **747** / Software Architecture Modeling and Reverse Engineering / K. Sartipi (same as COM SFWR 747)
- * **750** / Model-Based Image Reconstruction / C. Anand (same as COM SFWR 750)

NURSING

- * **708** / Information and Communication Technology Applications in Health: Theory and Practice / R. Valaitis (same as NUR 708)