

University of Manitoba
Graduate Courses in Community Health Sciences
Winter 2019

CHSC 6810 Biostatistics for Clinicians

(Tuesdays/Thursdays, 1630 – 1750 hours lecture; 1530 – 1620 optional tutorial Tuesdays; 1800 – 1850 optional tutorial Thursdays; Instructor: Robert Tate)

This course is designed for students in clinical Master's programs in Medicine, Pharmacy, Dentistry and Nursing. It is designed as a basic biostatistics course that will introduce the tools needed to read and understand quantitative health literature. Pre-requisite: Permission of instructor.

CHSC 7200 Current Concepts in Global Health: Populations, Policies and Programs

(Mondays, 1000 – 1250 hours; Instructor: Rob Lorway) COURSE CANCELLED

The course will focus on global patterns of mortality and morbidity, and the organization of health care services. Social, cultural, and economic issues will be related to health and health services. Prerequisite: instructor permission.

CHSC 7220 Health and Health Services of First Nations, Metis and Inuit Peoples

(Mondays, 1330 – 1550 hours; Instructors: Josée Lavoie, M. Fowler and Elder G. Shingoose)

Seminar-based course critically examines First Nations, Metis and Inuit health status, health care services, historical assumptions about indigenous populations, and 'pre-Canada' world events influencing European colonization of this land with resultant marginalization of original indigenous Peoples. Prerequisite: Students outside CHS require instructor permission to register.

CHSC 7250 Science and Practice of Knowledge Translation in Health Research

(Tuesdays, 0930 – 1150 hours; Instructor: Kathryn Sibley)

This course will provide students with an overview of the fundamental aspects and current state of knowledge translation (KT) science and practice in health research and care. The topics covered in this course will equip the student with the basic principles required to integrate knowledge translation science into health research and apply best KT evidence and methodologies to their dissemination and implementation activities. Prerequisite: Instructor permission is required.

CHSC 7270 Epidemiology of Chronic (Non-Cancer) Diseases

(Mondays, 1400 – 1650 hours; Instructor: Nancy Yu)

The objective is to study the natural history of chronic diseases including the distribution of diseases, risk and prognostic factors, rationale and strategies for prevention. The methodological issues concerning the investigation of severe disease are also discussed. Prerequisites: CHSC 7520, CHSC 7820, or instructor permission.

CHSC 7290 Economic Evaluation of Health Care

(Thursdays, 0930 - 1150 lecture; Instructor: Evelyn Forget)

The objectives of this course are to enable students to understand economic evaluation methodologies (cost-effectiveness, cost-benefit, cost-utility analysis) as applied to health care and to familiarize them with the applied literature on economic evaluation of health care. Prerequisite: CHSC 7810 or CHSC 7820 and CHSC 7520, or instructor permission.

CHSC 7320 Organization and Financing of the Canadian Health Care System

(Wednesdays, 1200 – 1250 hours tutorial optional; 1300 – 1520 lecture; Instructor: Les Carrothers)

Students will study the historical development and current structure of the Canadian health care system and relate its development to changes in social and political factors. The course provides an economic perspective on current policy issues in the organization, financing, and delivery of health care in Canada. Prerequisite: Students outside CHS require instructor permission.

CHSC 7320 Organization and Financing of the Canadian Health Care System

(Fridays, 0800 – 0850 hours tutorial optional; 0900 – 1120 lecture; Instructor: Les Carrothers)

Students will study the historical development and current structure of the Canadian health care system and relate its development to changes in social and political factors. The course provides an economic perspective on current policy issues in the organization, financing, and delivery of health care in Canada. Prerequisite: Students outside CHS require instructor permission.

CHSC 7362 Systematic Reviews and Meta-Analysis

(Thursdays, 1300 - 1550 hours; Instructors: Ryan Zarychanski, Ahmed Abou-Setta)

Systematic reviews and meta-analysis are integral to research success. Lectures and skill sessions will parallel the steps needed for successful completion of rigorous systemic reviews and meta-analyses of intervention studies. Prerequisites: CHSC 7520 and CHSC 7820. Instructor permission is required.

CHSC 7400 Seminar in Foundations of Disease Analytics Part B (spanned fall & winter)

(Fridays, 1330 - 1620 hours; Instructor: Lisa Lix)

The course will expose Visual and Automated Disease Analytics (VADA) Program students to selected topics in substantive and methodological topics associated with visualization and automated analytics for large-scale chronic and infectious disease data. This seminar-style course is participatory in nature.

CHSC 7400 Trauma and Resilience in Childhood and Adolescence

(Mondays, 1800 – 2050 hours; Instructor: Caroline Piotrowski)

This course provides advanced study of the effects of childhood adverse experiences (ACEs) on mental and physical health. Leading theories on children's trauma and resilience, including post-traumatic growth and pediatric medical trauma, will be critically reviewed. Prerequisite: Students outside CHS require instructor permission.

CHSC 7400 Health, Belief and Ethnomedicine: Traditional Healing and Medical Anthropology in Belize **COURSE CANCELLED**

(Course Dates TBA (contact instructor); Instructor: Andrew Hatala)

Contemporary indigenous groups draw on a long history of working with medicinal plants from their surrounding environment, while taking a holistic approach to health care. Around the globe many traditional health practices are quickly fading, however traditional healers remain widely consulted and essential members of their communities. This course will offer an introduction to the world of traditional health as it is practiced and integrated into daily life in southern Belize. The health practices of Maya and Garifuna populations will be explored in-depth, with a focus on their vitality and relevance to people's lives. Through in-class lectures and discussions, readings, guest lectures, visits with traditional healers and other elders, tours of a medicinal plant garden and medicinal plant walks with healers, students will have the opportunity to experience health traditions as they have been passed down through generations and begin to understand their form and function in today's world.

CHSC 7460 Environmental and Occupational Health **COURSE CANCELLED**

(Wednesdays, 0930 – 1150 hours; Instructor: Heejune Chang)

The aim of the course is to acquaint the student with the role of the environment (general and specifically working) as the determinant of health. The content of the course will be presented in the form of lectures, seminars, and field visits. Prerequisites: CHSC 7520. Students outside CHS require instructor permission.

CHSC 7510 Problem-Solving in Public Health

(Wednesdays, 1300 - 1550 hours; Instructor: Joel Kettner)

This seminar based course focuses on current issues and topics in community health to advance skills of thinking critically and communicating clearly about practical solution to public health problems. Prerequisites: CHSC 7520. Students outside CHS require instructor permission.

CHSC 7530 Applied Public Health Epidemiology

(Tuesdays, 1300 – 1620 hours; Instructor: Tammy Stuart Chester)

This course builds on the Principles of Epidemiology course through an applied focus. It discusses the application of epidemiologic principles in applied public health practice including the investigation of outbreaks, disease surveillance and the basic concepts of social network analysis, vaccine epidemiology and mapping. Students will also gain an understanding of the principles of prevention in public health practice, the benefits of qualitative methods and the role of the laboratory in outbreak investigation. They will receive instruction on the use of software for database development, data entry, analysis and presentation of results. Prerequisites: CHSC 7520, CHSC 7810 or CHSC 7820. Students outside CHS require instructor permission.

CHSC 7540 Advanced Epidemiology

(Tuesdays, 1000 – 1250 hours; Instructor: Marcelo Urquia)

Advanced epidemiologic research methods focusing on selected epidemiological issues (bias, confounding, matching, etc.). Discussion will be directed to both epidemiological and statistical considerations to find the optimal solution to a research problem. Prerequisites: CHSC 7520 (B+ minimum grade), CHSC 7820 (B+ minimum grade). Students outside CHS require instructor permission.

CHSC 7620 Research Data Centre (RDC) Research Methods Part B 1.5 credit hours

(Thursdays (every other), 0900 - 1120 lecture; regular term dates; Instructor: Shahin Shooshtari)

A continuation of the introduction to the processes and methods involved in using Statistics Canada's confidential master data files at the Research Data Centre (RDC). Students will gain skills in conducting secondary analyses in order to address important health and social policy research questions. Prerequisite: successful completion of Part A (CHSC 7610 T09); Venue: 309 Brodie Centre

CHSC 7720 Health and Aging

(Wednesdays, 0900 – 1145 hours; Instructor: Verena Menec)

This course is an advanced seminar designed to examine health and health care issues in aging. Where possible, the Canadian (or Manitoban) experience will be highlighted. Key topics in the health domain will be covered, such as frailty, mental health and dementia. The provision of care for older adults will also be covered, focusing on both the formal care system, as well as informal care providers. This course is a requirement for the Graduate Specialization in Aging. Prerequisite: Students outside CHS require instructor permission.

CHSC 7730 Topics in Health Services Research Part B

(Wednesdays, 0900 – 1150 hours; Instructor: Malcolm Doupe)

This course will expose students to select health services research topics that are particularly relevant in Manitoba and Canada. Students are expected to actively engage in seminars led by health services researchers and decision-makers, and also provide informative presentations in their own area of research. Students will also gain knowledge about various communication and knowledge translation strategies. Pre and/or Co-Reqs: CHSC 7320 and one of CHSC 7310 or CHSC 7300. Students outside CHS require instructor permission.

CHSC 7740 Advanced Qualitative Research Methods in Community Health Sciences

(Thursdays, 0900 – 1145 hours; Instructor: Michelle Driedger)

The purpose of this seminar-based course is to provide students with advanced knowledge on transformative qualitative research methodologies, methods and analysis related to redressing health inequities from a strength-based interdisciplinary perspective. Using case study and other applied approaches students will gain knowledge and experience in: the application of critical social theories to health research; understanding processes of community, stakeholder, and partnership engagement from multiple scales and perspectives (e.g. indigenous populations locally and globally); various ways of generating qualitative data and analyzing texts consistent with selected theory; developing different products for knowledge exchange activities; and the ethics and politics inherent within the research process. Prerequisites: CHSC 7738 (formerly FMLY 7710) or instructor permission is required.

CHSC 7830 Advanced Biostatistics for Community Health Sciences

(Mondays, 0900 – 1150 lecture; 1230 – 1320 computer lab; Instructor: Mahmoud Torabi)

This course focuses on Generalized Linear Models. Upon completion of the course, students will be able to: 1) give examples of different types of data arising in public health studies; 2) understand differences and similarities between standard linear regression and models for discrete outcomes; 3) use modern statistical concepts such as binomial and Poisson in public health studies; 4) understand models for polytomous outcomes; 5) conduct and interpret logistic, conditional logistic (case-control), and probit regression inference; 6) conduct and interpret time-related outcome variables including survival analysis and proportional hazard regression; 7) conduct and interpret Poisson outcome variables and Poisson regression. Prerequisites: CHSC 7820 with minimum grade B+. Instructor permission is required.

CHSC 7850 Advanced Biostatistical Methods for Hierarchical and Longitudinal Data

(Wednesdays, 0900 – 1220 hours; Instructor: Depeng Jiang)

The course teaches statistical methods for analyzing hierarchical ("multi-level") data. Mixed models are rapidly becoming the principal statistical tools for understanding hierarchical or "multi-level" data, such as the academic achievement of students within school classes within schools and perhaps within communities. The longitudinal application of "mixed models" provides analysis of temporal trajectories, for example, of the health of individuals (potentially nested within families, or communities) over time. Mixed models also can be utilized to analyze relationships, for example between health and income, over time, for individuals or families within communities, etc. The course will focus on the conceptualization, estimation and interpretation of mixed models in SAS. The primary emphasis will be on linear mixed models for continuous outcomes, however, nonlinear mixed models for categorical or count outcomes will also be discussed. Prerequisite: CHSC 7820 with a minimum grade of B+. Instructor permission is required.