

November 24, 2009

COURSE ANNOUNCEMENT

PLEASE POST

**DEPARTMENT OF EPIDEMIOLOGY AND COMMUNITY MEDICINE
FACULTY OF MEDICINE, GRADUATE OFFICE
UNIVERSITY OF OTTAWA, ROOM 2135, 451 SMYTH ROAD**

Winter 2010 The Department proposes to offer the following courses in the 2010 Winter term **if enrolment is sufficient**. Courses begin on Tuesday, January 5, 2010, unless otherwise specified. **University of Ottawa students will register through Rabaska online. Registration for Special Students (students not in a program at the University of Ottawa) will be from December 10 to 18, 2009** at the above address. For more information contact Fay Draper at 562-5800 ext. 8008. **NOTE: Anyone who is not in our MSc Program must obtain permission from the professor to register for any of the courses.** Tuition fee information can be found at <http://www.registraire.uottawa.ca/Default.aspx?tabid=2708>.

EPI 5143. EPIDEMIOLOGICAL RESEARCH USING LARGE DATABASES (3 cr.)

A practical approach to using administrative and other large databases for epidemiological research. Basic and advanced statistical techniques to manipulate, link, and examine datasets; large health surveys; coding systems; data warehouses; data mining; birth and death registries; use of census data; linking postal codes to geographical files; geographical information systems. SAS will be used extensively in the course as the primary application package. **Further information below.*

Place & Time: Health Sciences Building, Room 2111 - Wednesdays - 1:00-4:00

Instructors: A. Forster and C. van Walraven

***Further information from Dr. vanWalraven on EPI 5143. EPIDEMIOLOGICAL RESEARCH USING LARGE DATABASES**

This course will teach you the following topics: data encryption; data warehouses; coding diseases and procedures; summarizing disease; quantifying data quality; standardizing rates; getting supporting data for free; translating postal codes to census locations; using census data; mapping health data; measuring health quality; writing papers using administrative data. The course will also teach you the following topics in SAS: SAS functions; cleaning datasets; creating flat files; linking datasets; proc Tabulate + proc Format; proc report; graphics in SAS; SAS ODS; SQL processing in SAS; and Macro processing. A class dataset using real, encrypted health data will be used for exercises and examples (NOTE – encryption software is required to get these data).

EPI 5189. HEALTH ECONOMIC EVALUATION (3 cr.)

Brief overview of economics and health economics; examination of analyses used in epidemiologic and clinical research: cost-effectiveness analysis, cost-minimization analysis, cost-utility analysis (including determination of utilities), cost-benefit analysis, cost of illness studies and use of economic methods in priority-setting. Lectures and seminars. Written report required, presenting an economic evaluation or a detailed review of the economic literature in a particular area.

Place & Time: Health Sciences Building, Room 3001 - Thursdays - 2:00-5:00

Instructor: D. Coyle

EPI 5340. EPIDEMIOLOGICAL METHODS (1.5 cr.)

Major principles of study design and analysis: Validity in epidemiologic studies; Precision and statistics in epidemiology studies; Confounding; Additive and multiplicative interaction; Stratified analysis; Introduction to regression models; Introduction to regression modeling; Bias analysis; Analytical strategy. Prerequisites: EPI 5240 and EPI 5242

This course will begin on January 6, 2010 and the last class will be on February 17, 2010

Place & Time: Health Sciences Building, Room 3001 - Wednesdays - 9:00-12:00

Instructor: Y. Chen

EPI 5341. EPIDEMIOLOGICAL APPLICATIONS (1.5 cr.)

Interpretation of epidemiologic research and some specific topics: Complex survey data analysis; Attributable risk, odds ratio and relative risk estimation in multivariate analysis; Combined effect of multiple exposures and interaction measures; Chronic disease screening and surveillance; Environmental epidemiology. Prerequisite: EPI 5340

This course will begin on March 3, 2010 and the last class will be on April 14, 2010

Place & Time: Health Sciences Building, Room 3001 - Wednesdays - 9:00-12:00

Instructor: Y. Chen

EPI 5342. GENETIC EPIDEMIOLOGY (1.5 cr.)

Basic scope of genetic epidemiology, including an overview of types of human genetic variation, approaches to gene discovery vs. gene characterization. Specific issues include: Assessment of effect of family history on disease risk; Measurement of genetic variation, genotyping errors and factors affecting these; Study designs specially adapted to genetic epidemiology – family based designs (e.g. case-parent trio, case-sib designs), case-only designs; Candidate gene and genome-wide association approaches to genetic association; Gene-environment and gene-gene interaction; Integration of evidence; Evaluation of potential value of genetic information in screening (e.g. newborn screening), family history tools and genetic testing. Prerequisite: EPI 5340

This course will begin on March 1, 2010 and the last class will be on April 19, 2010

Place & Time: Health Sciences Building, Room 3001 - Mondays - 9:00-12:00

Instructor: J. Little

Continued

EPI 5343. OUTCOME MEASURES IN HEALTH RESEARCH (1.5 cr.)

Technical review of the design requirements for outcome measures in health research and clinical trials; a historical review of the evolution of such measures and a survey of the quality of existing instruments in various fields of health research (disability, quality of life, mental health, pain, etc). This course is designed for students who will need to use and interpret health measures in their research. Prerequisite: EPI 5340

This course will begin on March 5, 2010 and the last class will be on April 23, 2010

Place & Time: Health Sciences Building, Room 2154 - Fridays - 1:00-4:00

Instructor: I. McDowell

EPI 5344. SURVIVAL ANALYSIS IN THE HEALTH SCIENCES (1.5 cr.)

Application of advanced topics in statistical methods for epidemiology data analysis. This course explores methods for the analysis of data which includes information about the time when an event occurred. The approaches will be linked to epidemiological methods. The focus of the course will be on practical applications; mathematical theory will be presented only when required to understand the applications. The course will cover non-regression methods of analysing survival data, including actuarial life tables, the Kaplan-Meier method, the log-rank test, and person-time. The hazard curve will be introduced and linked to incidence rate/density. Proportional hazards regression modelling (Cox modelling) will be covered, including interpretation of model parameters, model building strategies and assessing the fit of the model. Methods to handle time varying covariates and non-proportional hazards will be discussed. Classes will include hands on modeling examples using SAS statistical software. Prerequisite: EPI 5340

This course will begin on March 2, 2010 and the last class will be on April 13, 2010

Place & Time: Health Sciences Building, Room 3233 - Tuesdays - 9:00-12:00

Instructor: N. Birkett

EPI 5345. APPLIED LOGISTIC REGRESSION (1.5 cr.)

Application of advanced topics in statistical methods for epidemiology data analysis. Foundation of model estimation: maximum likelihood; Modeling dichotomous outcome (dependent) variables: logistic regression; Logistic models with several independent variables; Interpretation of model parameters; Model building strategies; Assessing the fit of the model; Regression diagnostics. Classes will include hands on modeling examples using SAS statistical software. Prerequisite: EPI 5340

This course will begin on January 7, 2010 and the last class will be on February 18, 2010

Place & Time: Health Sciences Building, Room 2154 - Thursdays - 9:00-12:00

Instructor: K. Williams

EPI 5346. APPLIED LONGITUDINAL AND CLUSTERED DATA ANALYSIS (1.5 cr.)

Application of advanced topics in statistical methods for epidemiology data analysis. Introduction to longitudinal (repeated measures) and clustered data and overview of regression models for correlated data; Linear Mixed Effects Models: Modelling the mean; Modelling the Covariance structure; Generalized Estimating Equations and Generalized Linear Mixed Effects Models; Regression diagnostics; Missing data and drop-out; Case studies. Classes will include hands on modeling examples using SAS statistical software. Prerequisite: EPI 5340

This course will begin on March 4, 2010 and the last class will be on April 15, 2010

Place & Time: Health Sciences Building, Room 3001 - Thursdays - 9:00-12:00

Instructor: M. Taljaard

EPI 6278. ADVANCED CLINICAL TRIALS (3 cr.)

Lectures and laboratories on the detailed principles, design, methodology and statistical techniques associated with clinical trials. The course explores these concepts with an emphasis on new and emerging topics and procedures. Prerequisites: EPI 5242 and EPI 6178

THIS CLASS WILL BEGIN ON MONDAY, JANUARY 4TH.

Place & Time: Health Sciences Building, Room 3233 - Mondays - 1:00-4:00

Instructor: G. Wells

EPI 6281. POPULATION HEALTH RISK ASSESSMENT II (3 cr.)

Scientific methods for population health risk assessment; characterization of population health risks, and attendant uncertainties; risk modeling; combining risk information from different sources; risk acceptability, principles of risk management decision making; evidence-based risk management policy development; audit and evaluation of risk interventions; priority setting; case studies on current population health risk assessment issues. Term paper on a current methodological issue in population health risk assessment required. Prerequisites: EPI 5240, EPI 5242, and EPI 5181, or equivalents.

Place & Time: Health Sciences Building, Room 3001 – Tuesdays - 1:30-4:30

Instructor: D. Krewski

Spring/Summer 2010 The Department proposes to offer the following courses in the 2010 Spring/Summer session.

EPI 5180. INTERNATIONAL HEALTH AND DEVELOPMENT (3 cr.)

Presentations and seminars on philosophy of international development, international health and demographics, determinants of health, international health and human rights and humanitarian emergencies, tropical diseases and emerging pathogens, aboriginal health issues, impact of new health technologies on international health, cross cultural communication, management methods for international health. Seminar presentation required.

This course will begin May 18 and ends on July 27, 2010.

Place & Time: Institute of Population Health, One Stewart St., Room 220, Tuesdays, 9:00-12:00

Instructors: P. Tugwell, J. Hatcher-Roberts and C. Vlassoff

EPI5182. SAMPLE SURVEY RESEARCH METHODS (3 cr.)

Comprehensive review of the use of sample surveys in epidemiologic research. Sampling designs and methods. Simple random samples and stratified samples. Multi-stage sampling. Other complex survey designs. Cluster sampling and sample weights. Response and non-response biases. Questionnaire design. Analysis of survey data. Ethics in surveys. Practical issues in surveys. Prerequisite: Basic understanding of statistical methods and epidemiologic principles.

This course will begin on May 3 and ends on June 16, 2010.

Place & Time: Health Sciences Building, Room TBA - Mondays and Thursdays - 9:00-12:00

Instructors: B. Potter and R. Nair

EPI 7184. HEALTH POLICY (3 cr.)

Exploration of key issues relating to health policy within and outside Canada. Topics covered: rationale for public provision and funding of health care in Canada; make up of Canadian health care system; specific policy issues relating to health and health care provision. Sessions seminar-based, students expected to present on a policy-related topic.

Evaluation: student presentation, written report.

This course will begin on May 6 and ends on June 17, 2010.

Place & Time: Institute of Population Health, One Stewart St., Room TBA,
Tuesdays – 1:00 – 4:00 and Thursdays, 1:30 – 4:30

Instructors: T. Schrecker, R. Labonté