

MDCH Course Offerings 2023-2024

Term	Course Catalog #	Format, Dates & Location	Course Description	Instructor Name and Role
FALL BLOCK WEEK 2023				
F23	600	LEC MTWRF 09:00-16:00 (Block Week) FOOTHILLS	Intro to Community Health Sciences An introduction to the Department as well as a general orientation to the education and research programs in Community Health. Determinants of health within a population health framework and the implications for the determinants of health construct in analyzing and addressing specific population health problems.	Lashewicz, Bonnie (PI) bmlashew@ucalgary.ca
FALL SEMESTER 2023				
F23	610	LEC & TUT LEC TR 13:00-14:20 TUT TR 14:30-15:20 FOOTHILLS	(VET610) Essentials of Biostatistics Introduces the fundamental concepts of summarizing data and statistical inference, including graphical displays, hypothesis testing, p-values, and confidence intervals. Specific topics include comparisons of means and proportions, non-parametric tests, correlation and regression, confounding, sample size determination, and power calculations. Additional topics include a brief introduction to analysis of variance and covariance, logistic regression, and analysis of time-to-event data. Students gain hands-on experience analyzing data using STATA statistical software. Although this course uses STATA exclusively, much of the technical knowledge and some of the computing techniques are applicable to any statistical package.	Li, Na (PI) Na.li@ucalgary.ca
F23	612	LEC MW 13:00-15:20 FOOTHILLS	Biostatistics III: Models for Repeated Measures Studies and Time-to-Events Studies Discusses techniques for analyzing data collected at more than one point in time (repeated measures) and time-to-event (survival) data. Topics include generalized linear models (GLM), generalized additive models (GAM), Poisson regression, generalized estimating equations (GEE), and proportional hazards regression with time-varying covariates. STATA statistical software is used to analyze data.	Fick, Gordon ghfick@ucalgary.ca
F23	629	LEC T 09:00-11:50 FOOTHILLS	Found Prac & Sci in Med Educ Foundational academic concepts in the science of medical education including an overview of the philosophy of science, history of medical education and medical education scholarship along with fundamental concepts in medical education scholarship such as ethics and professionalism, critical appraisal and academic leadership.	Ellaway, Rachel (SI) rachel.ellaway@ucalgary.ca/ Kelly, Martina Ann (SI) makelly@ucalgary.ca
F23	640	LEC & TUT LEC T 09:00-11:50 TUT R 09:30-11:30 FOOTHILLS	(VETM640) Fund of Epidemiology Principles and methods of descriptive and analytic epidemiology. Emphasizes the underlying concepts and approaches of epidemiological research and critical appraisal of epidemiologic studies including: observational study designs and their vulnerabilities to bias, measures of frequency and association, basic methods for addressing sampling variability, confounding, and effect modification. Concepts related to causal judgment in epidemiology are also introduced.	Chaput, Kathleen (SI) khchaput@ucalgary.ca/ Hagel, Brent (SI) bhagel@ucalgary.ca
F23	666	LEC W 09:00-12:00 DOWNTOWN CAMPUS	Health Policy An advanced level course focused on developing and deepening participants' understanding of critical policy issues affecting health and health services. The course will primarily review health policy in the context of Canadian populations and systems. However, a more global comparative frame of reference will be used to test, challenge and contrast both the historical and current underpinnings of health policy in Canadian jurisdictions.	Zwicker, Jennifer Dawn (PI) zwicker1@ucalgary.ca/ Clement, Fiona M (PI) fclement@ucalgary.ca
F23	700A	LEC F 13:00-15:50 Online Synchronous	Professional Development [Professional Development & Experiential Learning (PDEL) Program] - Directed Study This course will focus on professional development skills for graduate thesis-based students. Over the course of the semester, students will be able to explore diverse careers in the health sciences, develop skills for mapping out a career in academic and non-academic spaces, as well as cultivate their skills in various professional development areas such as leadership, communication, cultural competency, entrepreneurship, project management.	Oddone Paolucci, Elizabeth (PI) eoddone@ucalgary.ca
F23	741	LEC M 16:00-18:50 FOOTHILLS	Systemic Reviews & Meta-Analysis An exposure to all steps involved in the conduct of a systematic review and meta-analysis.	Ronksley, Paul (AL) peronksl@ucalgary.ca/ Leung, Alexander (AL) aacleung@ucalgary.ca
F23	742	LEC T 09:00-11:50 FOOTHILLS	Advance Topics in Epidemiology Advanced topics and methods used in Epidemiology.	Metcalfe, Amy (SI) amy.metcalfe@ahs.ca/ Brenner, Darren (SI) Darren.brenner@ucalgary.ca

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F23	730A	SEM T 13:00-15:50 FOOTHILLS	Doctoral Med Ed Res Seminar An exploration of medical education research as an emerging field with multiple overlapping discourses, methods, philosophies, and ideologies.	Ellaway, Rachel (SI) rachel.ellaway@ucalgary.ca/ Hecker, Kenton (SI) kghecker@ucalgary.ca
Term	Course Catalog #	Format, Dates & Location	Course Description	Instructor Name and Role
WINTER BLOCK WEEK 2024				
W24	637	LEC TWRFS 09:00-16:00 WEB BASED	Politics of Inclusion and Exclusion of Community Rehabilitation and Disability Current topics relevant to inclusion and exclusion will be reviewed. An examination of research in disability provides an opportunity for the student to learn, understand, and compare legislation, policy, and ethical frameworks that inform action. Frameworks of choice, respect, consultation, collaboration, and co-operation will be examined.	Edwards, Meaghan (PI) Meagha.edwards@ucalgary.ca
WINTER SEMESTER 2024				
W24	611	LEC & TUT LEC TR 13:00-14:20 TUT TR 14:30-15:20 FOOTHILLS	(VETM611) Biostatistics II: Models Health Outcomes Extends the fundamental concepts to modelling health outcomes using modern regression analysis techniques. Logistic and linear regressions, and their extensions, are covered in detail. The rationale, formulation, and statistical assumptions underlying each regression technique are discussed. Methods for selecting and assessing models are included. Additional topics include a brief introduction to models used in the analysis of repeated measures, longitudinal studies, and time-to-event data. STATA statistical software is used to analyze data. Required course for Biostatistics and Epidemiology specializations.	Williamson, Tyler (PI) Tyler.williamson@ucalgary.ca
W24	615	LEC R 17:00-19:50 FOOTHILLS	Machine Learning for Health Data Science An introduction to machine learning with a focus on health applications. While the theoretical foundation behind each machine learning method will be covered, emphasis will be on hands-on skills and practical applications. Individual work on in-class quizzes and computer assignments to learn basic knowledge and hands-on skills as well as interactive class discussions and teamwork.	Lee, Joonwu (PI) Joonwu.lee@ucalgary.ca
W24	627	LEC R 13:00-15:50 WEB BASED	Med Ed Assess & Measurement Approaches to assessment and measurement within the context of competency-based medical education.	Oddone Paolucci, Elizabeth (PI) eoddone@ucalgary.ca
W24	628	LEC R 09:00-11:50 FOOTHILLS	Teach, Learn & Curriculum Design Overview of context in which medicine is taught and learned, the theory related to learning and change, the key elements of curriculum design and evaluation, and examine traditional and innovative methods used to enhance student and practitioner knowledge, skills and attitudes.	Kassam, Aliya (PI) kassama@ucalgary.ca
W24	636	LEC W 17:00-19:50 FOOTHILLS	Advanced Exploration and Visualization in Health Introduction of deeper tools, skills, and techniques for collecting, manipulating, visualizing, analyzing, and presenting a number of different common types of data in the context of health and biostatistics. Techniques for visualizing and supporting interactive analysis and decision making for a variety of different types of data, including text, networks, and geographic, and temporal datasets will be introduced. There will be a focus on critical thinking, problem-solving, and good analysis practices to avoid cognitive biases when designing, thinking, analyzing, and making decisions based on data.	
W24	649	LEC W 09:00-11:50 FOOTHILLS	Epidemiology of Infectious Diseases Focuses on the principles of epidemiology that are of relevance to infectious diseases. The course emphasizes the research aspects of infectious diseases epidemiology and how the basic techniques of epidemiology and biostatistics are applied to understanding communicable diseases. The course will introduce knowledge and skills in clinical and community-based epidemiology, infectious diseases, antimicrobial therapy, microbial pathogenesis, molecular epidemiology, and evaluation of relevant healthcare services.	Leal, Jenine (PI) Jenine.leal@ahs.ca
W24	660	LEC W 16:00-18:50 FOOTHILLS	Found Health Services Research An introduction to the fundamental concepts of health services research including topics related to health systems and methods in health services research, as well as evaluation of health systems performance, with emphasis on knowledge translation and health policy creation and analysis.	
W24	662	LEC T 16:00-18:50	Economic Evaluation Designed for students interested in being able to critically interpret economic evaluation studies of health or health care interventions and beyond. The aim	Spackman, Eldon (PI) Eldon.spackman@ucalgary.ca/

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		FOOTHILLS	of the course is to introduce students to the concepts and methods of economic evaluation, provide an introduction to how it may serve as a useful tool in health and health care decision-making, and to enable students to critically appraise the economic evaluation literature.	Marshall, Deborah (AL) damarsha@ucalgary.ca
W24	664	LEC R 09:00-11:50 FOOTHILLS	Admin Data Analysis Methodology Administrative data have been used widely for decision making and research. Analysis of the data requires knowledge of the data features and unique analytical skills since the data are not collected for research purposes. This course is designed to provide these skills. Through analyzing available administrative data, students will write manuscripts suitable for publications at peer-reviewed journals.	Quan, Hude (PI) hquan@ucalgary.ca
W24	681	LEC & TUT LEC T 09:00-11:50 TUT F 09:30-11:20 FOOTHILLS	Health Research Methods Introduction to health research, including research design, measurement, data collection, proposal and grant writing.	Radin Pereira, Leticia (PI) Leticia.radinpereira@ucalgary.ca
W24	683	LEC W 13:00-15:50 FOOTHILLS	Intro to Qualitative Health Research for the Health Sciences A focus understanding and appraising published examples of qualitative research on health topics as well as analyzing qualitative findings in health research. The importance of both methods and theories for ensuring rigor will be emphasized. Examples of relevance to people's experiences of health, illness and health care as well as the social and structural determinants of health will be considered.	Saah, Rebecca (PI) rebecca.saah@ucalgary.ca
W24	700B	LEC F 13:00-15:50 (Alternating) Online Synchronous	Professional Development & Experiential Learning (PDEL) - Directed Study This course will focus on focus on professional development skills for graduate thesis-based students. Over the course of the semester, students will be able to explore diverse careers in the health sciences, develop skills for mapping out a career in academic and non-academic spaces, as well as cultivate their skills in various professional development areas such as leadership, communication, cultural competency, entrepreneurship, project management.	Odone Paolucci, Elizabeth (PI) eoddone@ucalgary.ca
W24	740	LEC & TUT LEC M 09:00-11:50 TUT W 09:00-10:50 FOOTHILLS	(VETM740) Advanced Epidemiology Expands understanding of epidemiological research methods such as the assessment and management of threats to validity and approaches to causal assessment. Topics include handling of large data files, management of design effects, data linkage, identification and control of confounding, prevention of systematic and random (e.g. Type I, Type II) error, and addressing the problems associated with missing data. Exposure to generalized linear models, time to event models (including competing causes), generalized estimating equations, and mixed models. Includes an introduction to causal graphs, counterfactual reasoning, prediction, sample size calculations, risk-set sampling and meta-analysis.	Patten, Scott (PI) patten@ucalgary.ca
W24	730B	SEM T 13:00-15:50 FOOTHILLS	Doctoral Med Ed Res Seminar An exploration of medical education research as an emerging field with multiple overlapping discourses, methods, philosophies, and ideologies.	Ellaway, Rachel (SI) rachel.ellaway@ucalgary.ca/ Hecker, Kenton (SI) kghecker@ucalgary.ca

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