This is a three-credit course that serves as the foundation for the Department of Medicine’s newly developing program in clinical research. The course is team-taught and it provides an overview of key concepts and methods in clinical epidemiology. It is designed as a “survey” course and the audience are non-epidemiologists interested in clinical research of human populations. We have selected the topics that we believe form the basis for understanding and appreciating the discipline.

There are no set prerequisites, but it is expected that the student will have some background in mathematics; understanding functions and intermediate algebra is essential, and knowing differential and integral calculus will be helpful but not essential. Some experience with statistics may also be helpful. We assume that the student has a keen interest in understanding the uses of epidemiology in clinical research.

The main learning objective is to understand the basic principles underlying clinical epidemiological studies and thus be able to critically interpret papers published in the peer-review literature.

The main designs that are used in clinical epidemiology comprise observational studies (cohort, case-control, cross-sectional studies), and experimental studies (randomized controlled clinical trials), and these will be the focus of attention. As well we discuss essential concepts in biostatistics, and issues in measurement, quasi-experimental designs (e.g., pre-post designs), and screening.

The course is open to any student interested in this discipline. The course is taught at a graduate level but is suitable for advanced undergraduates. As this is a 600-level courses, undergraduates need permission of their departments.

The course will comprise lectures, discussions, papers, and presentations. The course is under the direction of Mark Goldberg, and is taught by a team of instructors in the Department of Medicine: Susan Bartlett, Suzanne Morin, and Giada Sebastiani.

The course is offered from 9:30 to 12:30 on Tuesdays, 9:35-12:25, in the Seminar Room, Glen Site, Research Institute, Block E, Room EM32225. The dates are: Sept 5, 12, 19, 26, Oct 3, 10, 17, 24, 31, Nov 7, 14, 21, 28.

Enrolment is capped at 15 students and you need permission from Mark Goldberg to register (mark.goldberg@mcgill.ca). Please send me a brief CV and your transcripts from your undergraduate training and any graduate courses you have taken. Unofficial transcripts are fine. First come, first serve.