

UNIVERSITY OF VICTORIA
DEPARTMENT OF ECONOMICS

ECONOMICS 485
TOPICS IN ECONOMICS:
ECONOMICS OF EPIDEMICS
(CRN 21107)

SPRING 2023

Instructor	Chris Auld auld@uvic.ca 250.721.8537 BEC 348
Office hours	Wednesdays 1:30-3:00
Course page	Available on Brightspace.
Course location	DSB C126
Meeting time	Mondays and Thursdays, 10:00-11:20am
Prerequisites	Economics 313 and either 345 or 365, or equivalent.

DESCRIPTION.

The course provides an overview of the field of economic epidemiology, the study of how behavioural response and policy intervention influence the spread of communicable disease. Topics may include: biological and behavioural compartment models of the spread of disease, the relationships between disease, economic growth and other economic outcomes, the economics of antimicrobial resistance, and evaluation of policies intended to reduce spread of disease, such as vaccination mandates, mask mandates, quarantines, and lockdowns. Empirical methods and results will be emphasized throughout the course, and assignments may entail generating new results from real-world data. After completing the course, students will have a solid understanding of basic modelling in epidemiology, how those models have been extended to study behavior, policy responses to epidemics, and econometric analysis of both behaviour and policy efficacy.

PREREQUISITES.

Intermediate Microeconomic Theory (Economics 313 or equivalent) and a semester of econometrics at the level of Economics 345 or higher is required. If you have not taken these specific courses but believe your background is nonetheless sufficient, please contact me.

MATERIALS.

There will be no textbook for the course as there does not exist a textbook focused on economic epidemiology. We will make use of journal articles and similar academic sources, to be assigned during the course.

TOPICS.

- 1 Introduction to economic epidemiology
- 2 Econometric methods for economic epidemiology
- 3 Compartment models in mathematical epidemiology
- 4 Microeconomic models of health-affecting behavior
- 5 Modelling responses to risk of infectious disease
- 6 Behavioral compartment models
- 7 Macroeconomics and communicable disease
- 8 Containment policies: vaccination, quarantine, mask mandates, lockdowns
- 9 Valuing health and life for public policy

This schedule is very tentative, may change markedly according to class and instructor interests, and topics may not be addressed in the listed order.

EVALUATION.

Assessment weights are as follows:

Attendance and participation	20%
Assignments and presentations	40%
Final exam or paper	40%

Evaluation will be based largely on assignments and, depending on class interests, either a final examination or a substantial research project. There may be presentations at the end of the course involving, for example, critical assessment of areas of the literature. Attendance and participation in class discussion are critical for a 400 level field course such as this one, so a non-trivial proportion of your grade will depend on your attendance and participation.

CONTACTING THE INSTRUCTOR.

Questions regarding class material should usually be posed during class or in person during office hours. It is not usually feasible to provide lengthy explanations of class material over email. Should you send email for whatever reason, please put "Econ 485:" in the subject line. If you do not receive a response from me within 48 hours, please resend your email.

TRAVEL PLANS.

Students are advised not to make work or travel plans until after the examination timetable has been finalized. Students who wish to finalize their travel plans at an earlier date should book flights that depart after the end of the examination period. There will be no special accommodation if travel plans conflict with the examination.

ELECTRONIC DEVICES.

Only basic calculators (with no alpha-numeric capabilities) are permitted during exams. Please note you may not use your cell phone or similar device as a calculator during exams.

During lectures, I ask you to respect both me your fellow students and refrain from using laptops or other devices to access material which may be distracting. Further, I strongly suggest that you choose not to use a laptop or other device during lectures, as evidence from randomized controlled experiments suggests that you will learn more

and earn a higher grade in the course if you take notes in longhand rather than using a laptop, see for example:

Mueller, P. and D. Oppenheimer (2014) “[The pen is mightier than the keyboard: Advantages of longhand over laptop note taking](#),” *Psychological Science*, 25(6):1159–1168.

POLICY ON INCLUSIVITY AND DIVERSITY.

The University of Victoria is committed to providing an environment that affirms and promotes the dignity of human beings of diverse backgrounds and needs.

OTHER POLICIES.

Standard University of Victoria and Department of Economics policies apply.

http://web.uvic.ca/econ/undergraduate/course_policies.php

<http://library.uvic.ca/site/lib/instruction/cite/plagiarism.html>