ECO402: TOPICS IN HEALTH ECONOMICS, WINTER 2024
DEPT. OF ECONOMICS, UNIVERSITY OF TORONTO
C. J. WARD, PhD

1. Course Description

Overview: This course introduces students to the role of economics in health, health care, and health policy. It comprises a survey of major topics in health economics and is designed to introduce you to the issues, theory and practice of health economics. Topics include the economic determinants of health, the role of moral hazard and adverse selection on the market for health insurance, the role of the government in health care, and health care reform.

For each course topic you will find lecture slides, discussion questions, videos and a detailed reading list posted on the course webpage. Please check the website frequently for new announcements.

There is no required textbook for the course, but you may find the following useful introductory material:

Health Economics:

- Sherman Folland, Allen Goodman and Miron Stano, *The Economics of Health and Health Care* (Prentice Hall), 7th edition.
- Jeremiah Hurley, *Health Economics* (McGraw-Hill Ryerson), 2nd edition.
- Jones, Andrew, *Applied econometrics for health economists: a practical guide*, Radcliff Publishing.

Empirical Methods:

- Mastering 'Metrics by Joshua Angrist and Jörn-Steffen Pischke (Princeton University Press, ISBN:978-0-691-15284-4)
- Causal Inference: The Mixtape by Scott Cunningham (https://mixtape.scunning.com/)

2. Course logistics:

Course website: https://q.utoronto.ca/courses/330561

Course email: eco402.ward@utoronto.ca

Course schedule: There are two sections of ECO402 with scheduled meeting times of Tuesdays 9am-11am (section L0101) and Tuesdays 1pm-3pm (section L0201). We have a common meeting time on Tuesdays 11am-1pm (which we will use for course office hours, methods workshops, and midterm tests). We assume students are available at the times given for their section in the university timetable. For a full description of the course schedule, please see the section on Course Coverage below (with weekly details posted in Ouercus).

Communication: Most points of communication for the course (office hours, email) are linked through the course website (address given above). We coordinate course help, project support, and

office hours to course timeslots to avoid other scheduling conflicts and to streamline discussions about course content. Please see the section on Course Communication for details on how best to communicate with course staff depending on your type of inquiry.

Prerequisites: Our starting point will <u>assume mastery of prerequisite material</u>, and we will spend the first weeks of the course bringing your accrued second-year microeconomics and statistical knowledge to extend to topics in health economics. The full set of prerequisites for ECO402 are listed and described here: https://artsci.calendar.utoronto.ca/course/eco402h1. Note: the department checks whether students have the correct course prerequisites and will automatically remove those who have not fulfilled the requirements.

3.

4. CHECKLIST OF REQUIREMENTS FOR COURSE DELIVERY

START-UP TASKS:

- o Check you have course prerequisites: https://artsci.calendar.utoronto.ca/course/eco402h1
- o **Review** your <u>methods</u> prerequisites by digging up your textbook/course notes and jogging your memory of the main topics covered therein. The methods prerequisite is ECO220Y1 (Introduction to Data Analysis and Applied Econometrics) or its equivalents ECO227Y1/(STA237H1, STA238H1)/(STA247H1, STA248H1)/(STA257H1, STA261H1).

FOR IN-PERSON MEETINGS, YOU WILL NEED:

- o **Paper and a pencil** (and probably an eraser, unless you're the kind of person that never makes mistakes). Electronic equivalents will work as well.
- Access to a **reliable laptop** with wifi capabilities and ability to access a web browser and our Quercus materials during course meetings.
- A current installation of Office 365, available at no cost to current U of T students, via the page Office 365 ProPlus: https://uthrprod.service-now.com/infocomm?id=kb article&sys id=514599cf47d011d0c36312c2e36d4378
- o Your **TCard** (your U of T Student ID card) ready
- o If you have an accessibility concern, reach out to ATS for accommodation as soon as possible so that we can get to work on things right away. To do this visit http://www.studentlife.utoronto.ca and register with Accommodated Testing Services (ATS): https://studentlife.utoronto.ca/department/accessibility-services/

FOR ONLINE MEETINGS:

- o Regular access to a **reliable laptop** with a working microphone and webcam
- o A **Zoom account under your U of T credentials** (personal Zoom accounts are blocked from accessing U of T zoom sessions).
- o Regular access to reliable high-speed internet and reliable electricity
- o The hardware, software, and knowledge to scan your work to be uploaded. Most phones can scan (a separate scanner is unnecessary) to create PDF, JPG, or PNG files.

BEST PRACTICES:

- o Regularly follow our **Quercus site for detailed guidance**, updated as our situation evolves.
- o Be **proactive to avoid technical and other difficulties**, which includes submitting well before deadlines, maintaining your devices, keeping software up to date, minimizing the strains on your internet bandwidth, learning how to scan efficiently, carefully reading all assessment instructions, and contacting your instructor/TAs immediately with any problems.

5. Course Coverage

Week	Lecture Topics (timing approximate)	Tutorial Topics		
Week 1:	The Economics of Health and Health Care			
Week 2:	Economic Evaluation	Prerequisite Quiz		
Week 3:	Econometrics Review	Econometrics Workshop		
Week 4:	Pharmaceutical markets			
Week 5:	Health Insurance			
Week 6:	Physician Behaviour			
Week R:	Reading Week			
Week 7:	Health Production	Midterm		
Week 8:	The Health Endowment			
Week 9:		Presentation Workshop		
Week 10:	Select Topic 1	-		
Week 11:	Select Topic 2			
Week 12:	Catch-up			

6. Course Assessment

6.1. EVALUATION

There are three types of assessment in ECO402: tests (quiz, midterm, final), and the capstone project. The capstone project is the backbone of the course, and it is due in phases including oral presentation and peer feedback.

How to do well in Eco402:

Eco402 a topics course centered on a series of readings and other reference content, and your attendance and participation in weekly course meetings is <u>strongly recommended</u> as an important input to your overall preparation for course assessments. Each of the weekly course meetings includes discussion questions that draw on the week's reference content. While ungraded, these questions form a reasonable basis for test content, and participation serves as an input into test preparation.

Further, there are workshops spanning our course, which help you prepare for each phase of the Capstone Project. For two of these, the Prerequisite Quiz and Presentation workshop, <u>in-class</u> attendance and participation is required.

The overall course grade will be determined as follows:

Assessment	Weight	Due Date	Collaborators	Submission
Course Project ¹	37%		Limited ²	
Topic Selection	1%	01-Mar	Individual	Online
Class Presentation ³	3%	11-Mar/12-Mar	Peers in-class	Online/In class
Presentation Video	12%	18-Mar	Individual	Online
Final Project ⁵	21%	01-Apr	Individual	Online
Methods & Topics				
Activity	1%	09-Jan	None	In class (individually)
Prerequisite Quiz	2%	16-Jan	None	In class (individually)
Midterm	25%	27-Feb	None	In class (individually)
Final Exam	35%	TBA	None	

¹ The weight for each phase gives the percent contribution of each phase to the total course grade.

The course project allows for substantial revision beyond what is possible during timed assessments, and it gives you an opportunity to hone your presentation and writing skills while gaining a deeper knowledge of a specific topic in health economics. Detailed instructions and expectations will be posted on Quercus, and these expectations will include <u>required</u> participation in workshops on key weeks of the course. Submission of work product will occur according to the instructions on Quercus and on the schedule listed above.

6.2. COLLABORATION

Tests: This may seem obvious, but warrants saying anyway: there is absolutely no collaboration allowed on the quiz, midterm and final. Your submissions must be entirely your own work, and any collaboration (with ANYONE) for any portion is a serious infraction. Note that this means you may not post any material directly related to the tests, discuss any of the test content, or share any files related to the tests **before or during the test window**. After the testing date, discussion of test materials within the context of the course is permissible (and welcome, even), but note that test materials are protected by copyright and cannot be shared or posted outside the context of our course environment (i.e., our course environment is the Quercus page, course meetings, and office hours). To be clear, this means you are NOT ALLOWED to share these materials outside the course environment. Because copyright infringement has been an issue in the past, do not expect detailed test questions and solutions to be posted after the fact in an easily sharable form. Instead, expect practice test questions each week and actual midterm questions to be discussed after the

² Limited discussion and interaction regarding the project permitted with other classroom peers. See description of limits in the section below. Note that any marks for peer work are given for your completion of a peer review and not based on feedback from your peers.

³ The Class Presentation is completed in conjunction with in-class workshop activities. See details below.

⁵ Evaluation of the Final Project will include our assessment of the <u>final</u> draft of your written paper and of your own assessment of progress through the project using your phase submissions as supporting evidence.

fact as a group <u>in-class time</u> (discussion which you can relate back to personalized feedback on your test paper itself).

Capstone Project: In terms of the capstone project, your submission at each point must be entirely your own work. You may engage in reasonable discussion with your classmates about how you are approaching your project. In fact, you will be expected to engage in productive discussion with your classmates in the presentation workshop (participation here is required). In all cases, these discussions should take place through course infrastructure: e.g., during workshops, or class discussion time. Other collaboration outside the course with ANYONE (such as sharing files, copying text or code, submitting text or code that is not your own) is prohibited. The work you submit for this assignment must be your own, and may not include any content from generative artificial intelligence (AI) tools, either verbatim or with edits. You may, however, use generative AI to support your work on this assignment in the following ways:

- To answer general questions about high-level concepts covered in this course or assignment
- To provide examples of the usage of the library's API
- To summarize information as part of the formative process, but where output is not directly submitted as your own work.

Please note that any uses of generative AI beyond the ones listed above are not permitted, and will be considered use of an unauthorized aid, which is an academic offense.

The project is due in phases, and cases of plagiarism become apparent either <u>quickly</u> during the semester or <u>easily</u> later on when reviewing the full history of submission across phases. Remember also that all course materials and work by other students is copyright protected, and a history of submission for <u>each phase</u> in past innovations of Eco402 is available for easy reference for the purpose of detecting plagiarism. The consequences for plagiarism are severe, and the process of investigating plagiarism is distressing for everyone involved and takes a great deal of time to resolve (possibly impacting future course enrollment and graduation timelines).

Normally, students will be required to submit their course essays to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation web site (https://uoft.me/pdt-faq).

6.3. REMARK REQUESTS

Remark Requests: Remark requests must:

- (1) Be submitted to Remark Request, which is an MS Form posted on the top of the main course website. All questions on the MS Form must be completed.
- (2) Be submitted within two weeks of the work's return to the class.

The entire submission may be remarked: your mark can go up, down, or remain unchanged. ALL submitted requests are reviewed together after the two-week deadline, not immediately. We will not consider any remark requests after the deadline.

6.4. MISSED WORK

There is a strict policy concerning missed tests or assessments, and any missed work earns an automatic mark of zero. For any issues that extend beyond our course, or last more than a week, you MUST contact your College Registrar immediately. Unless we hear directly from your College Registrar, we unfailingly apply the rules laid out in this syllabus, and we do so consistently across all students. We do this because ad hoc adjustment is entirely unfair to students who may be in similar circumstances, but who do not ask for accommodation beyond what is already offered. In terms of accommodations, we set the following to account for special circumstances, e.g., illness, injury, personal/family problems, enrolling after the course has begun, religious reasons, extracurricular conflicts, technology problems, internet or power outages, quarantine issues, accessibility accommodations, and/or other challenging situations.

Missed course meetings with graded activities:

Our expectation is for students to attend <u>all course meetings</u> and certainly all *grade-required* course meetings (grade-required meetings are listed in Section 6.1 as "In-class" submission). However, we make the following specific accommodations for students who cannot attend (e.g., for circumstances as listed above).

- 6.4.1. Late entry accommodation Week 1 and Week 2: We accommodate students who cannot attend grade-required course meetings in Week 1 by allowing online submission of Week 1 activities up to the end of Week 3 of the course (i.e., by Sunday, January 28 at 11:59pm). After this date, any missing submission will receive a grade of zero. We accommodate students who cannot attend grade-required course meetings in Week 2 by scheduling a make-up option.
- 6.4.2. **Missed Presentation Workshop**: To accommodate students who cannot complete the Class Presentation Workshop, we shift the grade weight for this component to the final. This accommodates students who attend under difficult circumstances and/or miss part of a workshop due to technology, travel and/or other issues. Again, if you have unexpected and unforeseen challenges extending beyond our course, or lasting more than a week, you MUST contact your College Registrar immediately before any further accommodation plan can be made.
- 6.4.3. **Missed online submission deadline**: The course project has several online submission deadlines. This process-based approach helps you manage your time leading up to deadlines and will make on-time submission a simple matter of sequence. Because of this, we adhere strictly to deadlines, and expect you to submit on time. There is a short grace-period of 2-hours after the submission deadlines, but beyond that we do not accept late submissions (no exceptions), and a grade of zero is assigned automatically. There are no make-ups and no extensions for ANY reason.
- 6.4.4. **Missed Midterm**: a missed midterm will receive a grade of a zero. In exceptional circumstances, we may grant an exemption. In this case, we determine whether an exemption will be granted; you need to complete ALL of the following steps to be considered.
- 1. Complete "Missed Test," which is an MS Form for our course. It must be submitted BEFORE THE START TIME for the missed test. For example, if the start time is 11 am on Tuesday, the LATEST you can request an accommodation is the morning of that same Tuesday: 11 am. It is unacceptable to fail to show up for an important engagement without advance notice. We do NOT wish to see any document completed by a doctor or other professional. All questions in the MS form are required.

- 2. Complete the University's Absence Declaration form on ACORN. See "How to Declare and Absence" on the Acorn webpage: https://help.acorn.utoronto.ca/how-to/
- 3. Check your U of T e-mail. If an immediate resolution is possible, we may e-mail you quickly. Otherwise, within one week of the missed work you should receive an e-mail from us. Follow any instructions in it. Not seeing an e-mail from us is not an acceptable excuse for your failure to follow any time-sensitive or other instructions.
- 4. Complete all other course assessments including the final exam. A make-up test will be scheduled by us, which must be completed by you. The style and timing of the make-up is at our discretion, e.g., it may be an individual oral test scheduled one-on-one with me or course staff, a written test scheduled in a joint session with other students, or a combination of both. Note that these will be held in-person unless policy dictates otherwise. Your performance on the make-up and other graded course work, as well your MS Form submission and correspondence, will be taken under advisement, and conjointly determine, your final course grade. We do not report marks for make-ups. However, after all regular course work is complete and returned, we will report the mark assigned for the original missed assessment.

Failing to complete all four steps above, regardless of the reason, results in a mark of zero on the original missed work. We do not accept late submissions and there are no make-ups for the make-up and no extensions for any reason. Accommodations for missing more work than addressed above are extremely limited: (1) an ongoing and substantial injury, illness, or personal/family problem seriously affecting the student's ability to complete term work across all courses over an extended period of time where the student's College Registrar writes to me after meeting with the student and formally requests an accommodation on the student's behalf or (2) more than one conflict not related to injury, illness or personal/family problems where I am contacted by the student very far in advance. In these limited situations, I will consider whether accommodations can still meet all course requirements or whether the student must be advised to drop the course and retake it when able to complete the required work. Any such extraordinary accommodations are at my discretion and may involve completing work at an alternate time, an oral and/or other assessment, re-weighting, and/or may be contingent on performance on other work.

7. COURSE COMMUNICATION

7.1. Mainstream Communication

We welcome discussion and question in ECO402! We have designed our course with communication in mind. To facilitate our collective discourse, we have organized the following as part of our semester: tutorials, open office hours, and lecture time with interactive activities requiring your feedback. Your ECO402 community is here for you through our course meetings: each week, all semester.

As you can probably tell from the Sections above this course requires a high level of in-person participation and given how many resources we've put to in-person supports, we will direct ALL communication through these points. Maybe you want to try to by-pass the course infrastructure altogether and email us one-on-one. Please note, however, that asking questions via e-mail is almost never the best way to get an answer. It leaves others out of valuable discussions and, more generally, requires a lot of repetitive effort for us; effort better put towards course improvement

(pareto improvement, even). Instead, consider the avenues of communication listed below, and choose one that best fits your inquiry. If you somehow missed this section of the syllabus the first time around and email me about something of general interest to others or something that has a structured process already attached to it, please do not take offence if you receive a canned reply directing you to come to our course meetings.

- 1. Questions on course content (including the material covered in course assessments):
 - o A primary way to address questions on course content is to come to the lectures and office hours to discuss. We do not typically handle these questions through email.

2. Technological issues:

- o If you are having an issue with your technology, come to class and discuss with one of the course staff. Remember from Section 4 above; you should be proactive about avoiding technical and other difficulties, which includes learning to use the technology laid out in Section 4 ahead of "crunch" time. Let us help you ahead of time by bringing it to our attention in our Tuesday meetings.
- 3. For remark requests on course assessments OR inquiries regarding a missed term test:
 - o Please use the MS forms links on Quercus.

4. For other inquiries:

 See us during office hours. We run open office hours twice a week. Consult the Quick Links table on the Quercus Course Calendar for locations and times.

7.2. EMAIL POLICY

Most questions can be handled through points 1-4 above, but for those rare concerns of a private nature, please reach out directly through email (e.g. for concerns about accessibility accommodations, TA issues, typos or broken links on the website). If you need to send an email, please adhere to the following:

- Send your email to the course email: eco402.ward@utoronto.ca. Do not use any other email address to get in contact with us (it will be missed or ignored). For example, DO NOT try to email us through Quercus or at any other address the instructor/TA may hold.
- o Send the email <u>from your UofT email</u> address (it will be ignored as spam otherwise).
- o Include your student number in your signature.
- o Please include the nature of your inquiry

What if you don't get an email reply?

The TAs and I usually craft all e-mail replies in blocks, <u>once a week.</u> Usually this is to direct you to office hours to take up your question there. The design of the course means you probably don't have an email that needs an immediate, on-call response (i.e., please see section **6.4 Missed Work** for policy on last minute submission emergencies, attend all weekly course meetings, and plan to stay on top of content questions ahead of course due dates. Note that for the reasons outlined above, we will not reply to questions that are better addressed face-to-face in course meetings, office hours, through points 1-4 above, or where the answers are already communicated in the Syllabus or course announcements. Therefore, if you <u>don't receive a reply</u>, please check the syllabus, review Quercus announcements, see us during office hours.

Lastly, please note that we will make important announcements through Quercus, which means you need to check in here regularly. You may also wish to customize your Quercus notification preferences to receive immediate notification of course messages.

8. ACADEMIC INTEGRITY

Please read/refamiliarize yourself with the Faculty Arts & Science's Statement on Academic Integrity at the start of our course: https://www.artsci.utoronto.ca/current/academic-advising-and-support/student-academic-integrity. As part of an academic community it is your responsibility to be aware of appropriate conduct. Any academic offence will be reported and acted upon immediately. All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, please reach out to me during class time or office hours. Note that you are expected to seek out additional information on academic integrity from me or from other institutional resources (for example, the University of Toronto website on Academic Integrity).

9. RECORDING TECHNOLOGY

This course, including your participation, will be recorded on video in OCCS-ready classrooms and may be available for viewing remotely in some circumstances (e.g., see Student Accessibility section below). Course videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation and are protected by copyright. Do not download, copy, or share any course or student materials or videos without the explicit permission of the instructor. For questions about the recording and use of videos in which you appear, please contact your instructor.

10. STUDENT ACCESSIBILITY

For accessibility concerns *immediately* visit http://www.studentlife.utoronto.ca/as and also register with Accommodated Testing Services (ATS): https://www.ace.utoronto.ca/ats/. We can provide accommodations for assessments as directed by ATS. If you have trouble, seek help right away from us, your College Registrar, and/or the Academic Success Centre. For any issues that extend beyond our course, or last more than a week, contact your College Registrar immediately.

11. Privacy

We are all expected to respect university privacy and copyright restrictions in this course.

Synchronous Events: The relevant policy states "Students may not create recordings of weekly synchronous events with the exception of those students requiring an accommodation for a disability, who should speak to the instructor prior to beginning to record these events."

Course Recordings: The relevant policy states "Download and re-use is prohibited. Course videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation and are protected by copyright. Do not download, copy, or share any course or student materials or videos without the explicit permission of the instructor. Non-compliance with these terms violates an instructor's intellectual property rights and the Canadian

Copyright Act. Students violating this agreement will be subject to disciplinary actions under the Code of Student Conduct."

Course Materials (lecture slides, tests and assignment questions and other course content): The relevant policy states: "Do not download, copy, or share any course or student materials or videos without the explicit permission of the instructor. Non-compliance with these terms violates an instructor's intellectual property rights and the Canadian Copyright Act. Students violating this agreement will be subject to disciplinary actions under the Code of Student Conduct."